INTEGRATED VERSUS DECONTEXTUALIZED APPROACHES TO VOCABULARY INSTRUCTION IN A SECOND LANGUAGE WRITING COURSE

by

Andrew Hayes

A thesis submitted to the faculty of
The University of Utah
in partial fulfillment of the requirements for the degree of

Master of Arts

Department of Linguistics

The University of Utah

May 2016

The University of Utah Graduate School

STATEMENT OF THESIS APPROVAL

The thesis of **Andrew Hayes**

has been approved by the following supervisory committee members:

MaryAnn Christison	, Chair	**8/21/2015** Date Approved
Adrian Palmer	, Member	**8/21/2015** Date Approved
Ellen Knell	, Member	**8/21/2015** Date Approved

and by **Edward Rubin** , Chair/Dean of

the Department/College/School of **Linguistics**

and by David B. Kieda, Dean of The Graduate School.

ABSTRACT

While vocabulary is generally understood to be an obvious part of language learning and instruction, the actual "nuts and bolts" of vocabulary instruction are not fully understood. Though there has been a renewal of interest in research into vocabulary in recent years, in terms of both theoretical motivations and pedagogical applications, many questions remain about the most effective ways of teaching vocabulary and promoting successful vocabulary development among English Language Learners (ELLs). These considerations are particularly important when it comes to the development of academic vocabulary in a higher-educational context.

This study reports results from a research experiment conducted at a public research university in the western United States. The study sought to compare two possible approaches to teaching vocabulary within the context of an academic, second language (L2) composition program. Both approaches offered students explicit instruction in academic vocabulary. The two approaches examined were a decontextualized, memorization dependent approach and a contextualized, integrated approach. Because previous research has indicated that integrated approaches to vocabulary instruction can be effective for L2 learners, it is hypothesized that students taught using a contextualized and integrated approach would learn targeted academic vocabulary more effectively than those taught using a decontextualized approach.

In addition, because previous research also indicates that success in learning a second language is highly correlated with an individual's attitudes towards their own language learning, this study examined students' perceptions about each of these approaches, as well as how these perceptions appeared to influence their learning. The perceptual data were collected via student responses to a survey that used a Likert scale which was then examined in the context of students' scores on a test of vocabulary administered at the end of the course.

Within-group results showed that a semester was not enough time for either group to make significant gains in their vocabulary knowledge and did not confirm the hypothesis that students who were taught vocabulary using a contextualized and integrated approach would learn more target vocabulary in a single semester than those taught using a decontextualized approach, confirming the results of previous research in the field. Students taught using both approaches also seemed to show positive attitudes regarding their own learning. A strong positive correlation was observed between students' attitudes and their performance on a vocabulary posttest.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ACKNOWLEDGEMENTS

I would like to state that I am deeply thankful to all those who have supported and encouraged me during the completion of this thesis. First, I am enormously indebted to my supervisory committee chair, Dr. MaryAnn Christison, who also served as my faculty mentor during the completion of my Master's degree. Dr. Christison's kind and patient assistance over the course of this project has been invaluable to me, not only professionally, but personally as well. Through what seemed like endless interminable drafts and revisions, her support and encouragement has been unstinting and unfailing, and without it I am not at all sure that the project would ever have gone beyond the beginning stages.

I am grateful to the other two members of my graduate committee, Dr. Adrian Palmer and Dr. Ellen Knell from Brigham Young University. As busy faculty members, I am sure that they have numerous projects that they would rather be working on than reading drafts of this project, and I am sincerely thankful for their willingness to assist me by serving on my committee. In particular, thanks to Dr. Knell who was willing to step in on extremely short notice to replace an earlier committee member who was unable to continue serving.

I would also be remiss if I did not express my gratitude towards my students, who not only facilitated this project by their willingness to participate and give their consent for their data to be used, but who were, in large part, a motivation for the project. As

language learners, their opinions and beliefs about their own learning are important, and I believe that listening to their concerns is a key responsibility of all those who conduct research in the field.

Finally, I would like to extend heartfelt thanks to my colleagues in the Linguistics department, who have buoyed my spirits and supported me during this process, and to my family. To my beautiful wife of 9 years, who has had to vicariously endure all of the pain this project has entailed, I express my thankfulness, love, and devotion—her support makes life as a busy graduate student bearable in spite of her frequent expressions of confusion about what could possibly possess a person to pursue advanced degrees in the esoteric field of linguistics.

I would also like to thank my three children, who mean everything in the world to me, and without whom I would find it much more difficult to get up each morning with a smile on my face. Even though they don't always believe it, because I don't let them play video games uninterrupted for several days at a time (Bennett), eat nothing but Skittles ever (Zoë), or hold them close for hours at a time when I need to be working (Finn), I love them and their mother more than anything on else in the universe, even watching British television.

CHAPTER 1

INTRODUCTION

If there is one point on which laypersons and professional language educators agree, it is on the importance of vocabulary in learning a second or foreign language. Even though there seems to be agreement on this major point, there are still many unanswered questions about vocabulary learning: What exactly occurs during vocabulary acquisition? What is the precise nature of the relationship between learning vocabulary and the development of language proficiency? What is the relative importance of vocabulary in comparison to other components of language, such as grammar? What "counts" as vocabulary learning? These questions have all been sources of great debate within the field of second language (L2) pedagogy. Additionally, a significant line of research and investigation exists in the field that has delved into pedagogical questions about vocabulary and how vocabulary is best taught and learned.

There are two general orientations to vocabulary instruction. The first orientation asks the question, should vocabulary be integrated and taught as part of a program of language study? If so, instruction would mainly consist of familiarizing students with strategies for "picking up" vocabulary through the ever-popular "context." The second orientation asks the question, should vocabulary be explicitly taught? If so, instruction must focus on what students need to know in order to know a word, which words should

be explicitly taught, how vocabulary should be explained to maximize retention, how vocabulary should be sequenced, and what sorts of activities provide the most useful types of practice for students.

The approach to vocabulary instruction and the types of questions that instructors might ask are especially relevant in settings designed to provide English learners (ELs) with the academic skills necessary to complete programs of study in institutions of higher learning—i.e., English as a Second Language (ESL) and English for Academic Purposes (EAP) in the U.S. and at English medium universities in other places around the world. In particular, because of the specialized nature of vocabulary in academic texts, providing students with specific academic language instruction is essential in preparing them for their future academic careers.

Furthermore, as Cummins (1981a, 1981b, 1991, 1993, and 2007) has pointed out, specialized academic skills take more time to acquire than basic communication skills in a second language. In addition, they both influence and are influenced by the academic skills learners have in their native language(s). Because academic language is not of high frequency in everyday communication, it is not likely that students will acquire it incidentally. Therefore, it is imperative that time spent in academic language classrooms should focus on the explicit instruction of academic language, including academic vocabulary.

However, despite a growing appreciation for the fact that academic language, including genre specific academic vocabulary, must be purposefully and explicitly taught, the research on how best to teach academic vocabulary is limited. This limitation is particularly noticeable relative to the teaching of academic vocabulary in conjunction

with academic writing skills. Experience demonstrates that traditional approaches to teaching vocabulary in EAP programs generally resemble traditional approaches in other kinds of general English language programs; that is, they often principally involve the use of decontextualized vocabulary learning strategies (e.g., vocabulary lists that must be memorized using context-free definitions). These kinds of learning strategies have attracted some criticism in the past because of perceived difficulty learners have in retaining and utilizing the target vocabulary in other contexts and over the long term (Folse, 2004).

Additionally, it is apparent that individual differences among learners (Dornyei 1994a; 1994b; Ellis, 2012; Gardner, 1985; 1995; 2001) influence SLA in general, and these differences might also interact with vocabulary learning. For example, how might learner motivations or beliefs interact with the degree of success a learner achieves with regard to vocabulary learning? It seems plausible that student attitude might affect student success and also be affected by it.

Research Questions

The major goal of this research study is, therefore, to address the gap between vocabulary instruction and the research on academic vocabulary use by investigating the effectiveness of vocabulary instruction in an EAP L2 writing course (i.e., explicit, integrated, and contextualized vs. explicit, decontextualized, and memorization-based vocabulary instruction), as well as student beliefs and attitudes about such instruction. The study has been framed around the following research questions:

1. Is there a significant difference between pretest and posttest scores on a

vocabulary test for the experimental group of L2 writers who are taught using a contextualized, integrated approach to vocabulary instruction that does not occur for the control group of L2 writers who are taught using a traditional decontextualized approach to vocabulary instruction?

2. Is there a significant difference in favor of the experimental group on vocabulary posttest scores between the experimental and control groups?
3. Is there a statistically significant difference in pretest-posttest variation between groups, and does this difference favor the experimental group?
4. What are students' beliefs and perceptions about the two different approaches to vocabulary instruction in an L2 writing course?
5. Is there a correlation between students' perceptions about the effectiveness of the vocabulary instruction and students' scores on a test of academic vocabulary?

Hypotheses

1. In reference to the first research question, it was hypothesized that there would be improvement in one or both groups. Furthermore, it was hypothesized that any score improvements would be statistically significant.
2. For the second research question, the hypothesis was that posttest scores in the experimental group would be higher than those in the control group and that the difference would be statistically significant.
3. The hypothesis corresponding to research question 3 (which asked about within-group gains) was that the experimental group would demonstrate larger gains in performance between the pretest and posttest. Any potential difference was

expected to be statistically significant.

4. It was hypothesized that students belonging to the experimental group would feel more involved with their vocabulary learning and that this would translate into more positive perceptions about their vocabulary learning.
5. The final question asked about the possibility of a correlation between student perceptions and performance on the vocabulary posttest. It was hypothesized that there would be a correlation observed between responses on the perceptual survey and actual performance on the vocabulary posttest.

CHAPTER 2

LITERATURE REVIEW

Though vocabulary is immediately identified by most language learners as important, until recently there has been a surprising lack of research on how to teach academic vocabulary most effectively. One might ask how such an apparently critical component in the process of second language acquisition (SLA) has received so little attention. The answer to this question lies, in large part, in the early history in the development of the field of SLA, and at least initially, on the influences of modern linguistics.

The Influence of Chomsky on Modern Linguistics

The Audiolingual Method of language teaching, which became ubiquitous in the 1950s and 1960s, had strong ties to B.F. Skinner's behaviorist model (Skinner, 1957). Consequently, it emphasized the importance of the rote grammar practice and sentence drills in learning a second or foreign language. After Chomsky successfully refuted Skinner's behaviorist language theory (Chomsky, 1959), language researchers were left without a strong theory and audiolingual methodology (or at least its theoretical justification) began to fall out of favor with second and foreign language practitioners. Instead, Chomsky's rival theory of language, which was first discussed in 1957 in his

seminal *Syntactic Structures*, emphasized what came to be known as Universal Grammar (or UG). UG takes as its central tenet the proposition that language is a universally and uniquely human trait, which human beings have access to through their genetic endowment. Chomsky's work birthed a generation of theoretical linguistics engaged almost exclusively in the investigation of syntax.

Indeed, Chomsky famously (or infamously) eschewed considerations of other aspects of language, such as meaning, in favor of these structural considerations—as illustrated by the well-known *colorless green ideas sleep furiously* as an example of a sentence which is grammatical, yet devoid of meaning. Many of the goals of research on language framed in Chomsky's theoretical perspective are, therefore, related to determining what properties of language are universal and how these universals are represented in the mind.

Additionally, even though UG was offered as a theory of first language acquisition, it greatly influenced researchers in the concurrently emerging field of SLA as scholars considered important issues in both SLA theory and L2 pedagogy. As a result, much of the early work in SLA focused on syntax or morphosyntax, such as (1) the investigation of the differences in performance between L1 and L2 learners (e.g., contrastive analysis) relative to certain grammatical features, such as word order and question formation, (2) the construct of second language acquisition itself and what it means to be a competent user of a second language (i.e., the ability to use correct grammatical structures), and (3) the orders of acquisition, which focused on grammatical morphemes, and developmental sequences, which focused on the development of specific grammatical structures, such as negation or relative clause formation. These historical

phenomena in the development of SLA contributed to an overall focus on language structure or grammar in L2 pedagogy research.

The Input Hypothesis and the Monitor Model

Krashen's influential Monitor Model (Krashen, 1977, 1982), which originally consisted of five hypotheses for explaining the process of SLA, was built upon the early work of the orders of acquisition and developmental sequence studies (Bailey, Madden, & Krashen, 1974; Dulay & Burt, 1974; Larsen-Freeman, 1976). It began to achieve prominence as an answer to many theoretical questions regarding SLA. The Monitor Model was—and still is—intended at its core to provide an explanation of how language is acquired that explains perceived differences between L1 and L2 processes. In explaining how his theory worked, Krashen used his own and others' experiences as language learners to capture the intuitions of many language practitioners about these processes.

A major part of Krashen's model is the Comprehensible Input Hypothesis, in which he articulates the idea that input—specifically, comprehensible input—is the causal variable in SLA. In other words, a language learner's capacity to acquire an additional language is triggered by the amount and quality of the input they receive in the target language. The comprehensibility of input, i.e., the ability of a learner to comprehend unmodified language input in the real world, depends on the learner's current level of language ability or proficiency. Ideal input for SLA would be mostly comprehensible, and it would also contain new material that was "a bit beyond [the learner's] current level of competence." This is something that Krashen terms $i+1$

(Krashen, 1982). To make input comprehensible to learners, L2 language instructors need to make use of various strategies for modifying input and providing various forms of scaffolding to ensure that the input their students are receiving is comprehensible and, therefore, useful to their students in acquiring the target language.

One of Krashen's hypotheses that affected vocabulary instruction was the Learning vs. Acquisition Hypothesis. It drew a crucial distinction between the value of incidental language input, similar to what children in their native language have access to, and the kind of language input that most often occurs in explicit instruction. Krashen theorized that acquisition can occur as the result of meaning-focused language use while explicit language instruction results only in learning. While such explicit instruction may be useful, it is a result of *learning* (not *acquisition*) and its purpose is to function solely as a *monitor* for language that has been acquired.

One problem with the pedagogical tradition that resulted from the acquisition vs. learning viewpoint was a definite belief that language learners could and would "pick up" vocabulary incidentally through extensive exposure to the right types of input. Some instructional approaches even adopted the view that explicit language instruction was unnecessary —a belief that Folse (2004) and others debunked as a "myth." In spite of the fact that the Monitor Model has come under criticism on both practical grounds similar to those discussed above (e.g., Swain, 1985) and theoretical grounds (e.g., McLaughlin, 1978), Krashen's work has heavily influenced the direction of L2 research and pedagogy, and ultimately, vocabulary instruction.

The Role of Explicit Instruction

A major problem researchers have observed with pedagogical approaches that rely almost exclusively on providing comprehensible input without explicit instruction is that L2 learners do not come close to reaching target language norms in the productive skills. Studies of immersion students in French Canada, for example, demonstrated that L2 learners acquired native-like language abilities in reading and listening but produce nontargetlike language in writing and speaking (Clipperton, 1994; Swain, 1985). Other notable studies included Schmidt's study of the (in)famous "Wes," a Japanese L1 speaker living and working in Hawaii who had been communicating and functioning in English on a daily basis for nearly 20 years, yet still did not seem to have "acquired" native-like proficiency (Schmidt, 1990).

Though the wisdom of comparing the language ability attained by L2 speakers with that of native speakers remains a contested topic, the pertinent conclusion drawn from the research of Schmidt and others is the observation that large amounts of exposure to comprehensible input over long periods of time do not always seem to translate into commensurate improvements in language ability. These concerns resulted in a growing awareness within SLA research that comprehensible input could not be the "be all and end all" in the L2 acquisition process.

Two major hypotheses emerging from this growing awareness were Swain's Output Hypothesis (Swain, 1985) and Schmidt's Noticing Hypothesis (Schmidt, 1990) with the former positing that output in the form of meaningful language production, along with explicit instruction, is necessary for acquisition to occur and the latter suggesting that a "conscious awareness" or "attention" must be directed at features of language

which are likely to be problematic for learners (namely those which are likely to be overlooked by learners, either because such omissions do not impede meaning or because a lack of the target feature in the learner's L1 predisposes it) in order for these to be successfully acquired, with this attention brought about either by communication failure or by explicit feedback from an interlocutor (for example, a language teacher).

Subsequent models, such as the connectionist model (Seidenberg, 1992) and interactionism (Gass & Varonis, 1994; Long, 1988, 1996; Pica, 1996) all acknowledged the facilitative role of input in SLA, but also suggested that it is not sufficient, or even always necessary (Larsen-Freeman & Long, 1991). Still other researchers (DeKeyser, 1997; Robinson, 1997) re-examined the crucial assumption that L2 learning would function fundamentally like L1 learning and investigated the applicability of models of skill learning from cognitive psychology to the acquisition of language, specifically as these models relate to the effects of explicit instruction and practice.

Though these studies all seem to demonstrate that explicit language instruction of various types can be useful to students, there is a relatively sparse body of research focused on the role of explicit vocabulary instruction in L2 pedagogy (Folse, 2004; Nation, 2001). L2 researchers are just increasingly beginning to explore vocabulary pedagogy in greater detail, especially as regards questions about how vocabulary influences language acquisition, what it means to "know" vocabulary, and, if it is conceded that explicit vocabulary instruction (whether it takes the form of output practice with feedback, skills development, consciousness-raising, etc.) is necessary, what *effective* vocabulary instruction should look like.

Research on Vocabulary Instruction

Vocabulary has an important role to play in SLA and L2 pedagogy, particularly as relates to the acquisition of overall academic skill development. Hedgecock and Ferris (2005) examined the effect of vocabulary size on reading skills and concluded that "vocabulary learning contributes positively to…the emergence of successful reading skills" (p. 284). Other researchers have identified positive correlations between vocabulary knowledge and writing skills (Laufer & Nation, 1995) and also between vocabulary knowledge and speaking and listening (Joe, Nation, & Newton, 1996).

Vocabulary learning is an important part of the process of second language acquisition. According to Lewis (1993), language use is made up of grammar applied to vocabulary, not vice versa. Though grammar is a major aspect of what language learners must know and do in acquiring and utilizing a second language, this knowledge is only beneficial inasmuch as they can apply it to their vocabulary. In other words, without a strong lexis to apply the grammar to, the utility of grammar knowledge is limited. What good is it to know which of the nouns in a sentence is the grammatical subject and which is the grammatical object if the learner has no idea what either of them are? If little communication is possible without grammar, it is certainly the case that *no* communication is possible without vocabulary (Folse, 2004).

The realization that focused vocabulary instruction is an essential component of a language course (Nation, 2002) has led to a significant paradigm shift in the way researchers view such instruction and led foreign and second language teachers to investigate questions such as the following: What do learners need to know in order to "know" a word? What vocabulary should be chosen for the focus of instruction? How

should this vocabulary be taught?

What Does It Mean to Know a Word?

The topic of what it means to "know" a word has been discussed among researchers regarding which components are important in mastering a word (Folse, 2004; Haynes, 1993; Schmitt & Zimmerman, 2002) However, there are several more or less generally accepted ideas. For example, it seems uncontroversial that "vocabulary" includes phrasal verbs (at least in a language like English which features a lot of them), formulaic expressions, and idioms. One of the more comprehensive opinions about what it means to "know" a vocabulary word comes from Folse (2004), in which he argues that true vocabulary acquisition includes knowledge of such aspects of vocabulary as *polysemy* (the multiple meanings which are associated with some vocabulary), the differences between *denotation* (the "dictionary" definition of a word) and *connotation* (the range of meanings with which a word is associated by native speakers), spelling, pronunciation, parts of speech, frequency, usage, and common *collocations* (groups of other words in which the word frequently occurs). Each of these aspects of vocabulary is part of what L2 learners must know in order to effectively use vocabulary in an academic context. Therefore, for the purposes of the following study, vocabulary acquisition is operationalized to include all of these components.

What Vocabulary Should Be Taught?

The second obvious question that arises concerns the selection of the vocabulary to be taught. Many tools exist that can assist language teachers in executing this role.

Hunt and Beglar (1998), for example, reference Nation's Vocabulary Levels Test as a possible diagnostic tool that can help instructors identify what their students already know and tailor their instruction to their students' needs. Other tools have emerged from corpus-based research, such as Michael West's *General Service List* (1953) and Coxhead's *Academic Word List* (2000). The *Academic Word List*, in particular, can be particularly useful in ESL or English for Academic Purposes (EAP) programs, which provide academic L2 students with critical reading and writing skills for use in an academic setting.

With regard to specialized vocabulary, few corpus-based lists (such as the *Academic Word List*, but specific to a given field) exist; however, instructors can certainly identify those words that they think will be particularly useful to students in given situations. This type of selective teaching can be particularly useful in courses based around specific fields and in programs designed to serve students across the curriculum and provide students with practical instruction that will be of use to them not only in their academic careers but in their future professional lives.

How Should Selected Vocabulary Be Taught?

Finally, if vocabulary instruction is an essential part of a language course (Nation, 2002), then two of the most important things L2 teachers need to know is what vocabulary instruction should look like and how it should be accomplished. These questions are the greatest focus of current discussions among researchers and practitioners of L2 pedagogy, and many differing approaches have been suggested, even to the extent that some approaches directly contradict one another.

Steps in teaching vocabulary. In keeping with the list of vocabulary components mentioned above, most current pedagogical practice agrees with Loucky (2005), who identified eight key steps in vocabulary that instructors must consider. The eight steps that L2 vocabulary instructors must be accomplish are the following: (1) assessing the degree of word knowledge their students already have, (2) assisting their students in accessing new word meanings, (3) helping students archive new information for study, (4) providing an analysis of word parts and origins, (5) anchoring new words in students' short-term memories, (6) incorporating opportunities for students to associate words in related groups for long-term retention, (7) activating words for their students through opportunities for productive written or oral use, and (8) reviewing, recycling, and re-evaluating students' knowledge of the new words.

The purpose of explicit vocabulary instruction and the goal behind the development of vocabulary materials and activities is, therefore, to maximize the effectiveness with which the instructor can accomplish these steps (Loucky, 2005). Varied instructional approaches largely agree on the eight steps, but they may differ concerning which steps are most suitable for explicit teacher intervention for the particular group of learners and how the intervention should be executed. Three major instructional approaches are reviewed in more detail below.

Approaches to teaching vocabulary. Hunt and Beglar (1998) identify the following three main types of approaches to vocabulary instruction: (1) incidental learning, (2) independent strategy development, and (3) explicit instruction. Each of these three approaches has unique benefits as well as drawbacks, and they are complementary, rather than mutually exclusive. Regarding incidental learning (i.e., learning vocabulary

through reading), Nation (2002) writes that such learning "has long been seen as a major source of vocabulary growth" (p. 258). Extensive reading approaches have been popular for the last several decades for the express reason that they emphasized meaning-focused input as a means of vocabulary acquisition. The incidental learning approach emphasizes comprehensible input; consequently, its pedagogical popularity was heavily influenced by Krashen's idea that comprehensible input is the main force behind SLA.

However, Nation (2002) (among others) has noted that "there is a fragility to this kind of learning" (p. 258) because the amount of input that must be present for learning to continue is often undetermined. In addition, instructors who use this approach must consider the fact that the type of reading in which an L2 learner is engaged has an influence on the effectiveness of incidental learning and the fact that "meaning focused input…depends heavily on the quality of learners' control of the reading skill" (Nation, 2002, p. 258). The incidental approach to language instruction therefore poses a chicken-or-egg problem for practitioners—what Coady and Huckin (1997) call "the beginner's paradox" (p. 229). How can learners acquire significant amounts of new vocabulary through reading when they do not possess enough vocabulary to effectively comprehend texts in the first place? As Krashen (2011) stated, "input must be comprehensible to have an effect on language acquisition and literacy development" (p. 1). The fact that comprehensible input is often necessarily limited by class time or other constraints, especially for beginning language learners, poses a significant challenge to any approach that depends on incidental learning of vocabulary.

The second approach deals with what Hunt and Beglar (1998) call independent strategy development—the teaching of independent techniques, such as using learning

resources (i.e., dictionaries, translations), working with vocabulary in context, and utilizing technology. The advantage of this approach is its naturalness, as well as its similarity to how academic vocabulary is developed in L1 speakers. While different students may choose any combination of a wide variety of strategies, it seems clear that most learners utilize *some* strategies when acquiring a second language (Oxford & Nyikos, 1989). Therefore, independent strategy instruction in a range of strategies should be a part of any L2 instructional context. There is also significant discussion in the literature regarding the role of the teacher in selecting the strategies to be taught and determining how to teach them.

The third type of instructional approach mentioned by Hunt and Beglar is explicit vocabulary instruction. In this approach, best practices suggest the following**:** the language teacher selects the vocabulary to be taught and provides specific opportunities for intentional learning, elaborates on word knowledge, and assists students with the development of fluency with already learned vocabulary (Hunt & Beglar, 1998). One benefit to this approach is that it can "add directly to both implicit knowledge and explicit knowledge" and is capable of "[raising] learners'…awareness of particular items, so they are more readily noticed when they occur in meaning-focused input" (Nation, 2002, p. 262).

An explicit approach to vocabulary instruction that follows best practice also avoids the beginner's paradox by providing students with the background knowledge they need to begin reading effectively. Such an approach, therefore, allows teachers to "have a major influence…on how well [vocabulary] is learned" (Nation, 2002, p. 259) and to provide direct assistance to struggling students. The teacher can also supply the

repeated exposures necessary for full learning of vocabulary. For these reasons the current research on vocabulary instruction mostly calls for a combination of the explicit approach and the independent strategies approach over the incidental approach.

Traditional methodology for vocabulary instruction is also considered an explicit approach; however, a great deal of traditional instruction still consists of memorization followed by assessments, such as matching exercises and cloze (i.e., fill in the blank) activities. Despite the fact that traditional explicit vocabulary instruction has proven ineffective in helping learners develop an appropriate understanding of words (McKeown, 1985), such instruction remains a common approach to teaching vocabulary. One reason that instructors may struggle to implement other approaches is that, as research on textbooks used in academic contexts shows, many textbooks (particularly content textbooks) emphasize the traditional explicit approach to vocabulary instruction.

Harmon, Hedrick, and Fox (2000), for example, examined the way that content vocabulary was taught in social studies textbooks, and found that many activities suggested for teachers involved traditional vocabulary practice (i.e., fill-in-the-blank, matching, etc.), rather than activities designed to promote higher-level learning of the vocabulary. As any language instructor can attest, the same problem is apparent in many language textbooks as well, which often focus on grammar as the content, rather than vocabulary. Teachers using such textbooks, therefore, may have difficulty applying a research-based, best practice approach to explicit vocabulary instruction.

To sum up, current research into vocabulary supports several main claims. The first is that knowing vocabulary means more than being able to give a definition or a translation that the learner has memorized. At a minimum, L2 learners must know

multiple meanings of a word, including connotative ones, and must be able to identify and use frequent collocations. Other information, such as spelling, parts of speech, etc. might be important as well, depending on the situation.

Next, vocabulary should not be chosen at random, nor should it be presented in default semantic sets (Folse 2004), i.e., with other words in a similar category, such as transportation, animals, or vegetables. Instead, it should be selected in a way that is consistent with students' target language needs, particularly in cases where they are learning a language for a specific purpose or to satisfy a specific need. The selected vocabulary should also be of practical, long term use for students, which will give them more incentive to learn and retain it.

Lastly, vocabulary instructors should focus on accomplishing Loucky's (2005) eight key steps. Instructors should familiarize themselves with the advantages and disadvantages of each approach and structure their teaching in a way that maximizes advantages while minimizing disadvantages, and should make sure that their instruction is theoretically grounded.

Materials Development for Vocabulary Instruction

With all of these key ideas in mind, all that remains to consider is the type of materials and activities a language teacher may have access to so that the vocabulary instruction is compatible with a theoretically grounded approach. There is an enormously varied range of different types of teaching materials available for vocabulary instructors, from commercially produced learning aids and textbooks, to online resources, and everything in between. This section will focus on providing an overview of some of the

types of materials that exist for teaching vocabulary and offer a brief discussion of their effectiveness.

Commercial Materials

Commercially designed learning materials have a wide variety of uses in an EFL or ESL classroom and can be valuable in assisting students in vocabulary development. In fact, as Crawford (2002) writes, "the proliferation of teaching materials [suggests] that the issue is not so much whether teachers should use commercially prepared materials, but rather what form these materials should take" (p. 80). In other words, regarding commercial materials, the current discussion largely revolves around what kinds of materials are most effective and what role they should play in the language classroom, rather than the question of whether or not to use them. In many ways, the key arguments here are the same as those which arise with regard to the various approaches previously mentioned.

Some supporters of incidental approaches have attempted to overcome the beginner's paradox by promoting the use of graded readers in an attempt to control for vocabulary level and remove comprehension as a concern (McQuillan & Krashen, 2008; Ying Lao & Krashen, 2000). However, some critics (Cobb, 2008; Nation, 2002) of purely incidental learning approaches, such as those which emphasize extensive reading, have pointed out graded readers do not address the problem of quantity—the fact that "there is a very rapid drop-off in frequency of occurrence of vocabulary after the most frequent 2,000 to 3,000 high-frequency words of the language" (Nation, 2002, p. 258). In other words, at more advanced levels, words simply do not occur with enough frequency in

realistic input for students to acquire them exclusively from input, absent any focused instruction. This is especially true of academic texts because academic tradition often emphasizes the use of a widely varied vocabulary.

Because a given text may not include enough repeated exposures to the same vocabulary word, especially if the word is already an infrequently used word in the target language, learners using graded readers are unable to effectively utilize incidental learning at precisely the moment in the process where it is could be most useful to them. By the time they have acquired the requisite amount of vocabulary that they are able to comprehend enough to absorb new vocabulary from context, they no longer have enough exposure to new words. Therefore, the beginner's paradox continues to create difficulties for language teachers trying to utilize graded readers or other forms of free reading effectively. In spite of this, research (as well as practical experience) seems to demonstrate that working with input in context can be valuable in adequate quantities and with adequate breadth of topics and genres, as long as focused, explicit language instruction is provided for support, and enough repeated exposures are present.

Another form of commercial material available for explicit approaches to vocabulary instruction is the textbook. Although some instructors feel that use of a textbook is restrictive, Crawford (2002) argues that although "such views seem problematic," she suggests, "mistrust of textbooks may be misplaced" (p. 82). That said, it does stand to reason that certain kinds of textbooks are more effective than others.

For example, textbooks should follow the guidelines for language-focused instruction provided by Nation (2002), including "focusing on pronunciation and spelling of words; [deliberate] learning [of] the meanings of a word; memorizing collocations,

phrases and sentences containing a word; and [correction] for incorrect use of a word" (p. 260). Unfortunately, most commercial textbooks have not followed these guidelines or taken these recommendations. A textbook then, to be effective, should provide more than simple vocabulary lists and should include comprehensive activities for learners to practice with.

As with vocabulary selected by the instructor, the choice of vocabulary included in the textbook is also an important concern, which should be carefully considered by teachers when selecting a textbook. During the course of the author's study of Japanese as an L2, he and his classmates developed an intense sense of frustration with the fact that the included vocabulary seemed to have been chosen at random by the textbook editors.

The upshot was that much of the vocabulary was infrequently used, and as a result, it was difficult to retain knowledge of the vocabulary because of insufficient exposure—a problem that could have been remedied if the authors had utilized frequency word lists or other tools when choosing which vocabulary words should be used. The textbook was useful inasmuch as it provided examples of usage and some explicit instruction of vocabulary, but its effectiveness seemed to be limited by the poor choice of vocabulary included. In contexts where textbooks are being used, care should be taken to avoid this potential pitfall.

Noncommercial Materials and Activities

With regard to strategy instruction, a wide range of tools and nontraditional language learning resources are available. In particular, access to tools such as L1 user

dictionaries, bilingual dictionaries, L2 only dictionaries, and online dictionaries were found by Loucky (2005) not only to assist students in acquiring vocabulary but to "reduce student anxiety and frustration levels," especially when used in conjunction with classroom activities and materials, such as web sites.

Teacher designed activities are another form of noncommercial materials that can be of benefit to instructors interested in providing either independent strategy instruction or explicit vocabulary instruction. These kinds of materials can be difficult to evaluate because the possibilities for their design are literally limitless; however, some research seems to indicate that certain types can be effective. Walters and Bozkurt (2009) found that instructors' assigning of vocabulary notebooks as a during-reading activity led to "significantly greater learning of the target words" (p. 403) among students who kept them. In addition, the study found that not only did receptive vocabulary knowledge improve, but students were able to utilize the newly acquired vocabulary productively.

This research appears to suggest that vocabulary notebooks can be "effective tools for students to use to take charge of, organize and manage their vocabulary learning" (Walters & Bozkurt, 2009, p. 404). One obvious benefit to the inclusion of vocabulary notebooks as a possible class activity is that keeping the notebook requires the use of multiple strategies—identifying new words, using a dictionary or other resource to discover the definition, and then referring back to the notebook as a sort of "personal dictionary" during later reading.

The advantage to using materials, such as dictionaries and web sites, and instructor-led activities (like vocabulary notebooks), is that they provide a possible circumvention of some obstacles to incidental approaches, such as the beginner's

paradox, by providing additional help to learners. However, this is tempered by the fact that, as Crawford notes, “many teachers still have neither the time nor access to adequate technology to create ‘authentic’…materials” (Crawford, 2002, p. 82).

It should also be noted that the use of such resources as dictionaries, vocabulary notebooks, and web sites is what Hunt and Beglar (1998) refer to as an independent strategy; therefore, in order for students to use these resources effectively, explicit instruction must be given regarding their application. Thus, though these materials can potentially enhance the effectiveness of incidental approaches, the instructor still has a significant role to play in explicitly teaching students to use the tools and to recommend the most effective materials.

Student Beliefs About Language Learning

In addition to the role played by instructional approaches and materials, research about learner beliefs shows that attitudinal factors may also influence SLA (including vocabulary acquisition). Gardner, for example, argued not only that learner motivation influenced L2 acquisition, but that specific kinds of motivation were superior to others (1985; 1995; 2001). Specifically, Gardner included positive learner attitudes towards their own language learning (especially as regarded the amount of effort learners were willing to apply, as well as the satisfaction they felt with their own learning progress) as a key aspect of what he called “integrative” motivation—a state which he claimed was likely to lead to improved learning experiences.

Dornyei (1994a; 1994b), though arguing for a different construct definition of motivation, likewise concedes that learner “affects or cognitions” (i.e.,

attitudinal/emotional factors) affect the langauge acquisition process. While the ways in which these factors interact are debatable, and controversy persists around specific claims about them, it seems clear that "social factors to do with the context of learning" (such as learner beliefs and perceptions) do in fact "have an effect on how successful individual L2 learners are" (Ellis, 2012).

Conclusion

Two broad themes link together most of the current literature in English language teaching on the topic of vocabulary instruction. First, vocabulary should be an essential component of L2 instruction, in addition to teaching grammar or structure. Though it has been historically undervalued in English language teaching research and pedagogy, there is a growing consensus that vocabulary acquisition is important not only in the classroom, but in English language research as well.

Second, regarding *how* vocabulary should be approached in a pedagogical sense, the most prominent theme is that different approaches and vocabulary learning materials have advantages that are often offset by drawbacks. This would seem to indicate that practitioners should not limit themselves to choosing one approach or one set of materials over another one, but should consider a combination of qualities from different approaches (i.e., incidental learning, explicit instruction, and strategy development). Different contexts call for different types of materials to balance "coherent learning experience…and responsiveness to the unique situation and needs of each learner" (Crawford, 2002, p. 88).

Seemingly, *how* vocabulary approaches and materials are implemented and

applied may be more important than *which* approaches and materials are used. The ideal language instructor walks a "tightrope" (Crawford, 2002, p. 91) and should provide a *variety* of different tools and approaches to vocabulary learning, rather than allowing one dogma or one particular method (e.g., extensive reading, learning by translation, memorization) to dominate; the ideal language classroom will be one that applies a blend of many techniques, rather than focusing on a single method. Narrow orientations to teaching vocabulary fail to take into account the wide range of student needs that are present in a language classroom and are vulnerable to drawbacks that can be addressed by the incorporation of a wider range of ideas; nevertheless, these narrow orientations to teaching vocabulary are those which are most common in English language teaching programs and most prevalent in published textbooks.

CHAPTER 3

RESEARCH DESIGN

With these broad conclusions from the research on L2 vocabulary instruction in mind, this section will detail the methodology and materials utilized in the current classroom-based study on vocabulary instruction. The study participants will be described and the research design will be briefly summarized. Additionally, the methods used by the researcher for collecting and analyzing data will be articulated.

Context

The study was conducted with academic English as a Second Language (ESL) students in two second language (L2) academic composition courses in a public institution of higher education in the western United States. The courses in which the data for this study were collected have no published statement about an approach to teaching academic vocabulary in the ESL courses that are a part of the sequence of ESL courses that satisfy the lower division writing requirement, nor is academic vocabulary teaching an integral part of the syllabus design**.**

The ESL program that houses the study limits vocabulary instruction to vocabulary workbooks that students use for independent study. Teaching assistants (TAs) who teach these courses do not normally focus on the vocabulary in the workbooks

during classroom instruction. Instead, students use the workbooks at home and are encouraged to memorize the vocabulary on their own. The core content of the writing courses (e.g., paragraph structure, thesis statements, rhetorical structure) and the general approach to teaching L2 writing (e.g., writing a series of academic essays) remained the same as it was before the addition of the academic vocabulary workbooks. The ESL writing course that was used for data collection purposes is the third in a sequence of three required ESL writing courses.

The study had several goals. One major goal was to evaluate the effectiveness of the decontextualized, memorization-driven approach to vocabulary learning in relation to a contextualized approach. A second major goal was to evaluate student beliefs about possible differences between the approaches and ascertain if such beliefs were linked to differences in performance. Finally, a third goal for the author as a course instructor was to address the feasibility of organizing the content in the L2 writing course to allow for the introduction of academic vocabulary instruction during class time.

Classroom-based Research

This study is an example of classroom-based research. The overall design of the study was quasi-experimental, so there was nonrandom assignment of participants to the experimental and control groups. Membership in groups was determined by enrollment in courses. Each of the two courses was 16 weeks in length. Because a major focus of investigation for this study involved a comparison between the effects of two different instructional approaches for including vocabulary acquisition, the students enrolled in both groups were taught the same course content.

For this particular study the instructor and the researcher were the same person. While there is an extensive tradition of classroom-based research in the field of language pedagogy, the author understands that conducting this type of research requires awareness of a number of factors that might influence results. For example, Nunan (1997) points out that if "practitioner initiated inquiry" is to be considered as "research" rather than "reflective or exploratory teaching," then such research must concern itself with the standards of other kinds of research. Additionally, the limitations of such research (possibly researcher bias—effects caused by familiarity with the study participants, subtle instructional changes, etc.) need to be acknowledged and considered in the research design.

However, in spite of these limitations, classroom-based research has many advantages. For one thing, "teacher research provides-a way for teachers to participate in examination of classrooms and schools in order to shape policies, as well as bridge the divide between teachers, academics, and statehouses" (Christianakis, 2010, p. 110). Types of research that involve the practitioner "accord greater power and control" for educators (Nunan, 1989, p. 10) and "can engage policy-makers in teachers' work" (Rust & Meyers, 2006, p. 70). Instructor-as-researcher studies, therefore, connect teachers directly to decisions being made about curricula and give them a key voice regarding what approaches are implemented in their classrooms.

Another advantage to classroom-based research is its increased practical relevance to language instructors. Because classroom-based research provides a closer link between instructional approaches and research, as well as providing context and a classroom orientation for the research (Nunan, 1997), the results obtained by such

research are more likely to be of practical use for teachers. As Nunan and Bailey (2009) point out, classroom-based research "can provide a great deal of useful information about how foreign language instruction is actually carried out (in contrast to what people imagine happens in classrooms)" (p. 4). Such information can help instructors answer questions about the competing claims of different instructional approaches, which is a key goal of the current study. Research conducted in the classroom by language instructors is also more easily applied toward improving instruction.

For example, a major motivation for this particular study was feedback from the researcher-instructor's students and peers. Because a major goal of this study was to obtain knowledge about how to improve his own instruction, classroom-based research, which could be easily translated into improved instruction, seemed perfectly suited. By contrast, practical considerations prevented the researcher from utilizing other research approaches, such as culling study participants from classes taught by his peers. Chief among these was the possible introduction of the instructor as a variable. By keeping the researcher and the instructor the same person throughout the duration of the study, external instructor characteristics were excluded from the study, thus enhancing internal study validity.

Finally, classroom-based research was particularly important to this study because of the nature of the questions being examined. The kind of research done by this study is psychometric—it measures both attitudes (student perceptions) and mental processes (i.e., vocabulary acquisition). This kind of research has in fact dominated language pedagogy for many years (Nunan & Bailey, 2009) precisely because classroom-based studies work well for investigating the kinds of questions language researchers often ask

about learners.

As for the inclusion of qualitative methods for examining student perceptions, the researcher's personal philosophy is that students' opinions about their language learning are critical to the process of constructing knowledge about language pedagogy. Several of the questions investigated by this study involve student beliefs and perceptions—"the social meaning" that language learners "attribute to their experiences, circumstances, and situations" (Hesse-Biber & Leavy, 2011, p. 4). Because the learners ultimately deserve language classes that meet their goals and needs, it is important to consider them directly as part of any program of research, especially those that seek to improve instruction.

Qualitative research also allows us to take a more in-depth look at the topic (Nunan, 1992) than quantitative research and to get "a glimpse of what lies beneath" (Haverkamp, Morrow, & Ponterotto, 2005, p. 124) the surface of what is observed numerically in the learners' performance. For all of these reasons, a qualitative look into learner beliefs and perceptions using a survey was included as a major component of this study.

Participants

The two groups represent the nature of the international student population typically enrolled in the ESL writing classes at the University. There were 8 in the experimental group and 17 in the control group for a total of 25 students. Participants came from different seven different language backgrounds and had varying degrees of experience with formal English language studies, although all of them had at minimum two previous semesters of instruction in the ESL program offered by the university.

There were both male and female participants represented and all students fell between the ages of 18-30. Several of the students were fluent in multiple languages or dialects, and English was not the first additional language they had learned. Some participants had also studied English as part of formal schooling in their home countries, while others had only the prior two semesters in the ESL program.

Instructional Design

The content was the same for both groups; however, the content was treated differently in several respects, with integration of vocabulary into classroom activities being the most prominent feature separating differences in instruction between the two groups. In the experimental group, there was a reduction in the proportion of teacher-fronted lectures in favor of adding class-wide discussion of readings to promote the use of specific vocabulary in the f2f classes (i.e., the explicit instruction approach).

In order to integrate explicit vocabulary instruction into the experimental group, additional readings and example essays with accompanying class discussion were utilized, which allowed the teacher to work with specific academic vocabulary in multiple contexts, while teaching the same content as in the control group. In addition, readings and in class discussion allowed the instructor to address Loucky's eight steps for vocabulary instruction (e.g., to assess the degree of knowledge that learners had developed about the vocabulary and to assist them in learning new words). These were two instructional tasks that were missing from the incidental learning approach for the control group.

In the integrated vocabulary approach, there were two major writing assignments

that comprised the largest percentage of class assessments (25% in each case). These assessments were a summary/response essay and an argument/persuasive essay on a topic of the student's choice. The basic difference between the control and experimental groups was in how vocabulary instruction was delivered. The same topics were covered in each course (see Appendices A and B). In the integrated vocabulary approach (i.e., the experimental group), in addition to the readings and discussions, weekly vocabulary study in the form of compiling a vocabulary notebook, with students receiving evaluation and feedback, was implemented. These notebooks were worth a portion of the students' grades nearly equal to each of the essay assignments (20%), reflecting the value that was placed on vocabulary as part of the course. The portions of the grade calculated based on homework assignments and quizzes were equal (15% in both cases). The course was taught in face-to-face format, with vocabulary being assessed using the same online quizzes used in the decontextualized course, and with the same optional online resource available to students.

In the incidental vocabulary approach, the students received a "traditional" L2 writing course that was centered around composing an original research paper on a topic of their choice. The course was sequenced into two main units; however, these units overlapped and the course in some ways resembled a modular design, with modules focusing on topics that are useful in both units, such as using resources in L2 writing (i.e., how to use a digital research database, how to get help from reference librarians, etc.), developing a topic, writing clear thesis statements, integrating sources (summarizing, quoting, and paraphrasing), using effective revision strategies, and utilizing peer and instructor feedback.

In the incidental vocabulary group, grammar was only a focus of instruction during one review period and vocabulary instruction was incidental to the course. Because of the perceived need to improve academic vocabulary, the ESL program included a vocabulary study component in the course; however, this component was almost entirely adjunct to the course. Students studied vocabulary from a textbook at home and then took online vocabulary quizzes posted on a learning management system to assess their learning of the vocabulary. The course was delivered in an entirely face-to-face (f2f) format, but the teacher-fronted topics were supplemented by an optional online resource offered through the campus library, which students could use to review if they desired. Almost all assessments, aside from the online vocabulary quizzes, were in the form of two academic essays (a summary/response essay and an exploratory research essay), each of which was worth a significant percentage of the student's final grade (30% and 40%, respectively). The remaining portion of the grade was divided evenly between homework assignments (including participation) and quizzes (online vocabulary quizzes and online review module quizzes), each worth 15%.

Each group utilized the same three textbooks (selected by ESL program administrators): *Refining Composition Skills, 6th ed.* (Smalley, Ruetten, & Kozyrev, 2012) and *They Say, I Say*, *2nd ed.* (Graff, Birkenstein, & Durst, 2012). The second section also included additional sample essays from the latter volume, which the instructor made available to the students via the learning management system. Additionally, both sections used *English Vocabulary for Academic Success* (Walker, 2012), a text compiled using Coxhead's *Academic Word List* (Coxhead, 2000), although, as mentioned above, the control group mainly used the textbook for self-study, while the experimental group

worked with the same textbook during class in addition to their regular study. Specifically, students in the experimental group worked with the vocabulary in context. The instructional designs for the two courses are shown in Appendix A.

Materials

The study made use of a number of additional materials and tools designed by the researcher. In particular, a set of assessment tools (vocabulary tests) and a survey were used to collect data from study participants. More detail is provided below regarding each tool.

Vocabulary Tests

The vocabulary tests used for the pretest and posttest were taken from the *English Vocabulary for Academic Success* workbook and the target vocabulary was drawn from the same pool for both groups in the study. In keeping with Folse's (2004) discussion of what constitutes "vocabulary" and what it means to "know" a word, the tests measured knowledge of each separate aspect of vocabulary knowledge: polysemy (multiple meanings for one word), denotation ("dictionary" definition), connotations (mental associations of a word), and collocations (frequently occurring expressions in which the word is used). These constructs were mainly evident in the separate sections of the test—several sections on each test consisted of fill- in-the-blank questions primarily focusing on knowledge of the denotations (dictionary definitions) of target words.

Other sections measured knowledge of collocations through "Fill in the Blank" questions which asked the learners to complete a collocation using a word from a list of

possible responses, while still others utilized parts of speech and constituted an attempt at measuring polysemy (i.e., highlighted that the same word could be both a noun and verb, etc.). It is worth noting that these sections did not measure polysemy tracing back to sources other than parts of speech (i.e., idiomatic uses of the same word, cases in which the same word carries an additional, conceptually unrelated meaning, rather than simply changing the part of speech, etc.). Idiomatic expressions and connotations were tested mainly using the "collocations" portions of the test, since many of the collocations tested were idiomatic or involved oblique meanings different from standard dictionary definitions. The pretest/posttest can be found in Appendix B.

Attitudes and Perceptions Survey

A Likert-scale survey to gather information about students' attitudes was selected for several reasons. First, previous attitudinal studies (Dornyei, 1994a; 1994b; Gardner, 1985; 1995; 2001) have utilized Likert-scale surveys as instruments for data collection. While objections to subjective data have some merit, it is not easy to collect more objective data. Indeed, a major obstacle to attitudinal research is the difficulty of finding data that are not influenced either by instructor or learner subjectivity in interpreting attitudinal characteristics. In general, most attitudinal research has utilized student perception of their own attitudes towards learning rather than instructor perceptions about the same factors, on the belief that students would interpret their own attitudes more effectively than instructors (Dornyei, 1994a; 1994b). Such surveys, while their subjectivity is controversial, remain the most reliable way researchers have to collect data about attitudinal factors such as students' beliefs and perceptions.

The specific questions on the Likert survey were tailored to elicit the specific types of information sought by the researcher. Some questions were intended as a group to elicit knowledge about the learners' general experiences in the course, while others were intended to elicit comparative data (i.e., they asked students to consider their experience in the current course in light of their earlier experiences in previous courses in the same program). The researcher composed the questions, basing them on question types that had been used in earlier studies. Because the type of information desired was specific to this particular study, it was not possible to adopt a previously used attitudinal survey. It is important to note that the researcher tried to create questions that were clear and uncomplicated, but it was not possible to pilot the survey. These facts need to be kept in mind when considering the results.

Data Collection

Participants in each group took a vocabulary pretest prior to beginning any vocabulary study. The exact same test was administered as a posttest at the end of the semester. The pretest/posttest was identical between the two groups. Students were also asked to complete a survey to find out about their beliefs and perceptions of the usefulness of the instruction for developing their abilities to use academic vocabulary. Questions utilized a Likert scale and were administered during the final week of the course; the same survey was used for both groups.

Data Analysis

Pretest scores were measured and compared between the two groups using a simple *t*-test in order to assess possible starting differences between the two groups. If no significant starting difference was detected between the two groups, the researcher planned to compare mean posttest scores between the two groups using another *t*-test. If, however, the pretest scores were significantly different, it was proposed that pretest scores would be used as a covariate and the posttest scores would be analyzed using ANCOVA (this turned out not to be the case).

Next, pretest and posttest mean scores within groups were compared using a *t*-test in order to ascertain whether or not significant vocabulary gains occurred within groups from beginning to the end of treatment. Mean posttest scores were compared between groups (again using a *t*-test) to establish whether the experimental group's posttest scores were significantly higher. A one-way ANOVA calculation was performed in order to compare gains in scores between the two groups and address the question of significant variance in pretest and posttest scores between groups.

Finally, data from both groups' perceptions of their vocabulary learning were compared across groups using a *t*-test to determine significant differences. To see if students' perceptions were related to their overall performance for the vocabulary portion of the course, participants' scores on the perceptual survey were analyzed using Spearman Rho to see if they were correlated with their scores on the vocabulary posttest.

CHAPTER 4

RESULTS

The results of the classroom-based quasi-experimental study are presented below. First, the results of the quantitative data analysis for the pre- and posttests for both groups are addressed. Next, quantitative data from the perceptual survey are presented, and descriptive statistics will be used to analyze these data. Finally, the relationship between students' perceptions of the effectiveness of their vocabulary instruction (as reported in the survey) and their overall scores on the posttest will be examined.

Pretest Results

Given the quasi-experimental nature of the study design (i.e., membership in the integrated and decontextualized groups was not randomly assigned), it was important to ensure that the difference in mean posttest scores between the two groups could be attributed to the treatment (i.e., the vocabulary instruction) and not to differences between groups prior to treatment. Vocabulary knowledge as measured by the pretest was identified as a variable that could likely have a possible effect on the study outcome; therefore, it was important to control for it in the study design.

In order to control for the possibility of interference from prior vocabulary knowledge, a pretest was given to each group. The mean scores for each group on the

vocabulary pretest were compared utilizing an independent two-tailed *t*-test. The results of this comparison are shown in Table 4.1. The pretest means were 39.41 for the decontextualized group and 50.63 for the integrated group. This difference in pretest means between the two groups, while large on the surface (an effect size of d=.83), is not statistically significant at a level of $\alpha<.05$. As a result, it was assumed that for the purposes of the study, the two groups were not significantly different in vocabulary ability prior to instruction as measured by the pretest.

Posttest Results

Pretest-Posttest Gains Within Groups

Table 4.2 presents results from the within group comparisons based on pretest means to posttest means. In each case, a paired-sample, one-tailed *t*-test was performed. The null hypothesis in each case was that posttest scores would not be higher than pretest scores for the same group. The table shows that pretest-posttest gains were not statistically significant for either of the groups. In the case of the decontextualized group, the *p*-value is .222 (which is greater than .05), which means the null hypothesis cannot be rejected. For the integrated group, the *p*=value is .213 (again greater than .05), which again means that the null hypothesis cannot be rejected.

Posttest Comparison Between Groups

The posttest scores between the two groups were compared using a one-tailed *t*-test, given that there was nothing that changed between the two groups other than additional class time spent on reading and vocabulary, and there was no reason to suspect

that additional vocabulary help might cause students to perform worse. The results of the second *t*-test comparing the posttest mean scores of the two groups are shown in Table 4.3. In this case, the *p*-value of .04<.05. Therefore, the difference in means on the posttest scores between the two groups is large enough to reject the null hypothesis that posttest scores from the experimental group would not be higher than those from the control group, and it can be concluded that the difference is statistically significant at the standard alpha decision level of $\alpha<.05$. The effect size is also on the large end of the medium range as shown by the value for Cohen's *d* (.77), where *d*=.20 is a small effect, *d*=.50 is a medium effect, and *d*=.80 is a large effect.

Comparison of Gains Between Groups

Additionally, within-group pretest-posttest gains were compared to each other using ANOVA in order to examine differences in gains between the groups. The results of this comparison are shown in Table 4.4. The significance value (*p*) for the ANOVA test was .864. (*f*=.03), which indicated that the null hypothesis (i.e., that there was not a significant difference in pretest/posttest score gains between the two groups) cannot be rejected.

These results were confirmed by performing a *t*-test comparing mean gains between the two groups (group statistics were the same as those shown above). The *t*-test provided a significance value (*p*) of .86, when equal variances were assumed. When equal variances were not assumed (which would violate the assumptions for ANOVA), the value of *p* was .86. This shows that even if variances cannot be assumed to be equal, the difference in pretest-posttest score gains between the two groups examined in the

study is not statistically significant. Furthermore, the effect size is extremely small (d=.05), where d=.20 is a small effect size, d=.50 is a medium effect size, and d=.80 is a large effect size.

Learner Perceptions Regarding Vocabulary Instruction

In order to address Research Question 2, a survey was administered to students in each of the study groups, which featured seven questions and a Likert scoring scale from 1 to 5. Students were asked to rate their level of agreement with statements about vocabulary learning on a scale of one to five, with a "1" being "strongly disagree" and a "5" being "strongly agree." The survey instrument can be found in Appendix C. Question 1 focused their perceptions of how they learned vocabulary, and Questions 2-7 focused on the effectiveness of the course for their own learning. Percentages of students selecting each response for the perceptual survey are shown in Tables 4.5 and 4.6.

Responses that were marked "3" were excluded from the perceptual data. I interpreted ratings of "3" on items to be neither negative nor positive, suggesting that students were unclear about their overall perceptions. The percentages for questions marked as "3" ranged from 12% to 50% of the participants. As is apparent in Tables 4.5 and 4.6, responses to the questions were generally positive (i.e., there was a greater percentage of responses with ratings of "4" and "5" than for "1" and "2") for both groups. The exceptions are Question 1 for Group A (i.e., When studying vocabulary for this course, I had to memorize a great deal) in which 47% of the students responding rated the question a "2" and Question 5 (i.e., I used the academic vocabulary I was learning for the ESL 1060 course in my own writing for writing assignments) for Group B in which 50%

rated the question as "1" and "2." On Question 4 (i.e., Compared to my vocabulary learning experiences in ESL 1040 and/or ESL 1050, I would describe my vocabulary learning experiences in ESL 1060 as more effective) and Question 6 (i.e., I believe that I will remember the vocabulary I learned in the ESL 1060 course and will be able to use it in the future) the responses from both groups were overwhelmingly positive, with 71% of Group A participants responding with "3" and "4" and 75% of the participants in Group B responding with "3" and "4."

Descriptive Statistics for Perceptual Data

Table 4.7 shows descriptive statistics for the affective/attitudinal data collected with the Likert survey. An independent *t*-test revealed that there were no significant differences between groups for any of the questions (see Table 4.7) in spite of the fact that the integrated group generally had more positive responses. Additionally, effect sizes were small in each case (the largest effect size was on the low end of the medium range at d=.51).

Correlation Between Perceptions and Scores

The final analysis on these data was performed to determine if there was a correlation between participants' scores on the vocabulary posttests and their orientation to the courses as determined by their responses to Questions 2 through 7 on the survey. By adding up each participant's answers to Questions 2 through 7, I obtained individual total raw scores for each participant. The total scores were then ranked. These rankings were paired with the participants' scores on the vocabulary posttests. In cases of identical

scores, ranks were averaged to give identical scores identical ranks. The raw data appear in Table 4.8.

Finally, the rankings were used to calculate the value of Spearman's ρ in order to determine whether or not there was a correlation between participants' scores on the Likert survey, which represent their positive or negative orientation to the course, and their ranking in terms of their overall scores on the posttest, which represent their knowledge of vocabulary in the course (as measured by their performance on the online quizzes as a group). The resulting value for ρ was ≈.994, indicating a strong positive correlation between participants' perceptual rankings and posttest scores.

Table 4.1 Two-Tailed *t*-Test Comparing Pretest Means

Group	*N*	*Mean*	*SD*	*t*	*P (Sig.)*	*Effect Size (Cohen d)*
DC	17	39.41	14.07	1.93	.07	.83
IG	8	50.63	7.19			

Note. DC = Decontextualized Group; IG =Integrated Group.
*$p < .05$

Table 4.2 Paired Sample *t*-Test for Within-Group Gains

Group	*N*	*Pretest Mean*	*SD*	*Posttest Mean*	*SD*	*t*	*P (Sig.)*	*Effect Size (Cohen d)*
DC	17	39.41	14.07	41.41	17.01	.79	.22	.13
IG	8	50.63	7.19	53.38	11.86	.84	.21	.23

Note. DC = decontextualized Group; IG =Integrated group.
*$p < .05$

Table 4.3 Independent Sample *t*-Test for Posttest Means

Group	*N*	*Mean*	*SD*	*t*	*P (Sig.)*	*Effect Size (Cohen d)*
DC	17	41.41	17.01	1.79	**.04*	*.77*
IG	8	53.38	11.86			

Note. DC = decontextualized Group; IG =Integrated group.
**p* < .05

Table 4.4 ANOVA for Within-Group Gain Score Analysis

Groups	*N*	*Mean Gain*	*SD*	*f*	*P (Sig.)*	*Effect Size (Cohen d)*
DC	17	2.00	10.50	.03	.86	.05
IG	8	2.75	9.22			

Note. DC = decontextualized Group; IG =Integrated group.
**p* < .05

Table 4.5 Responses for Questions on the Perceptual Survey by Percentage:

Decontextualized Group

Questions	*Content Marker*	*Rating Scale*					
		1	*2*	*3*	*4*	*5*	
1	Memorization	0%	47%	18%	35%	0%	
2	Useful	0%	12%	29%	35%	24%	
3	Successful	0%	0%	47%	29%	24%	
4	1060 vs. 1040/1050	0%	0%	29%	36%	35%	
5	Writing	6%	18%	29%	41%	6%	
6	Future	0%	6%	18%	35%	41%	
7	1040/1050 help with 1060	12%	0%	29%	35%	24%	

Table 4.6 Responses for Questions on the Perceptual Survey by Percentage: Integrated Group

Questions	*Content Marker*	*Rating Scale*				
		1	*2*	*3*	*4*	*5*
1	Memorization	0%	25%	25%	38%	12%
2	Useful	0%	0%	38%	37%	25%
3	Successful	0%	0%	37%	38%	25%
4	1060 vs. 1040/1050	0%	0%	25%	50%	25%
5	Writing	12%	38%	12%	25%	13%
6	Future	0%	0%	25%	50%	25%
7	1040/1050 help with 1060	13%	0%	50%	37%	0%

Table 4.7 Descriptive Statistics for Likert-scale Survey Data

Question	*Content Marker*	*Mean*	*SD*	*Mean*	*SD*	*t*	*P (Sig.)*	*Effect Size (d)*
		Decontextualized		Integrated				
1	Memorization	2.88	.93	3.38	1.06	1.18	.12	.51
2	Usefulness	3.71	.99	3.88	.83	.42	.34	.18
3	Success	3.76	.83	3.88	.83	.31	.38	.13
4	1060 vs. 1040/1050	4.01	.83	4	.76	.17	.43	.07
5	Writing	3.24	1.03	2.88	1.36	.74	.23	.32
6	Future Retention	4.12	.93	4	.76	.31	.38	.13
7	1040/1050 Usefulness for 1060	3.59	1.23	3.13	.99	.93	.18	.40

Note. $*p < .05$

Table 4.8 Participant Postest Scores with Rankings and Likert Scores with Rankings

Posttest Scores	*Ranking*	*Survey Scores*	*Ranking*
67	2	27	2
67	2	27	2
67	2	27	2.5
66	4	26	5
62	5.5	26	5
62	5.5	26	5
60	7	25	7
58	8.5	24	9
58	8.5	24	8.5
50	10.5	24	9
50	10.5	23	11
48	12	22	12.5
46	13	22	12.5
44	14	22	12.5
41	15	22	13.5
38	16	21	16
37	17	21	16
34	18	20	18.5
32	19	20	18.5
30	20	19	20
29	21	18	20
25	22.5	18	22
25	22.5	18	22
24	24	17	24.5
11	25	17	24.5

CHAPTER 5

DISCUSSION

In this chapter, the results of this study in terms of the four research questions are discussed. Then, some possible implications for academic vocabulary instruction are presented. Finally, the limitations of the study are mentioned and possible directions for future research are presented.

Comparisons Within and Between Groups

Research Question 1 focused on whether there was a difference within groups for the scores on the pre- and posttests, and Research Question 2 focused on whether there was a difference between groups on the posttest.

Pretest-Posttest Gains Within Groups

With regard to pretest-posttest gains within each group, the results did not reveal a significant difference between the pretest and posttest for either the control or the experimental group. This result is an interesting one for second language (L2) pedagogy relative to the duration of vocabulary instruction. Based on the preliminary results from this study, it seems that a single semester's worth of instruction on specific academic vocabulary is not enough time for academic learners at the participants' level of language

proficiency to make significant improvement in vocabulary knowledge. Although students did quite well on the individual unit vocabulary quizzes after study and focus, they seem to have been unable to access that knowledge at the end of the course on an assessment for which they could not study or prepare. When L2 teachers think about vocabulary development they should think about the fact that it develops incrementally and over a long period of time (such as over the duration of a whole program or over a series of courses). Although overall scores improved slightly from pre- to posttests, the improvement was not significant. It also seems that this trend holds true regardless of the instructional methodology or students' perceptions about the instruction (see discussion on students' perceptions).

Posttest Comparison Between Groups

The pretest scores between groups showed that there was no significant difference between groups. Thus, we can assume that the two groups of participants had a similar level of vocabulary knowledge prior to instruction. The posttest comparisons between groups showed a significant difference in vocabulary achievement between the control and experimental groups. The integrated group scored significantly higher on the posttest than the decontextualized group. This finding suggests that it is possible to redesign an L2 writing course to embed academic vocabulary in the academic content, and that this is better than using a traditional, context-free approach to vocabulary. However, as the calculation for Cohen's *d* showed, the effect size for this advantage was .77, which corresponds to a medium effect size. This places a limit on the advantage in favor of the group taught using the integrated approach.

Comparison of Gains Between Groups

Though the experimental group scored significantly better on the vocabulary posttest than the control group, the results of a gains score analysis using one-way ANOVA revealed that the actual gains were not significantly different between groups. A possible explanation for this is that some factor that was not controlled for in the study (i.e. group size, time of day for instruction, etc.) might have been influencing the results. In any case, it is only possible to say that posttest scores (not gains) were significantly higher for the experimental group, and that this group made (on average) a gain of 1 point more on the posttest than the control, not that the differences in actual gains between groups were significant.

Learner Perceptions Regarding Vocabulary Instruction

Research Question 3 focused on students' beliefs and perceptions of the vocabulary instruction—namely, how do students perceive the two different methodologies used (i.e., the traditional and decontextualized vs. the integrated and contextualized)? It was answered via the Likert survey. In this survey participants were asked about their attitudes relative to how much vocabulary they thought they had learned, how well they thought they would retain the learned vocabulary, and how useful they thought classroom activities were. These results provided the researcher with additional evidence and insight into participants' academic vocabulary learning experiences and suggest possible explanations for why learners performed significantly better in the experimental group.

On Questions 2, 3, 4, and 6, the integrated group had a greater percentage of

responses marked “4” and “5” than the decontextualized group. Notable departures from this trend emerged for Question 1, which asked about the amount of memorization done in the course, and for Questions 5 and 7, which asked about the usefulness of vocabulary learning in the current course and about the vocabulary studied during the earlier courses in the program.

No participants rated Questions 1 (i.e., When studying vocabulary for this course, I had to memorize a great deal) as a “1” or “strongly disagree.” For Question 1 in the integrated group, 47% of responses were rated as “2” (disagree) and for the decontextualized group 25% were rated as “2.” A possible explanation for the result is that the researcher was assuming that students would look at the word “memorize” similar to the way the researcher did—as something similar to “context-free memorization” (i.e., that they were expected to memorize vocabulary words and their definitions on their own without context or instructor assistance). The researcher realized after the fact that it is entirely possible for students to think of a definition of “memorize” as something closer to “remember,” and so constructed their response to the survey question based on the fact that they did try to remember new words, especially in the context of the class because they were actually using the academic vocabulary in their reading materials and group discussions.

Further insight into Question 1 might be gained by looking at Question 2 and Question 3 on the survey, which asked about how useful (Question 2) and successful (Question 3) students felt their vocabulary learning was. In spite of recording unexpectedly high levels of agreement on Question 1 about the amount of memorization they did (35% of total responses in the decontextualized group and 50% of total

responses in the integrated group were either “4” or “5”), majorities of respondents in both groups felt that their vocabulary learning was useful, meaningful, successful, and effective (as measured by their responses to Questions 2 and 3).

Furthermore, the percentage of positive responses to both Questions 2 and 3 was higher for the integrated group than for the decontextualized group. In response to Question 2, about usefulness, 62% of responses from the integrated group were positive (above “4” or “5” ratings), as opposed to 59% in the decontextualized group. In response to Question 3, about successfulness, the difference was more pronounced, with 63% of the integrated group responding positively, as opposed to 53% of those in the decontextualized group. Clearly, memorization (at least for the students in this study) is not viewed as mutually exclusive with context-enriched, focused vocabulary instruction.

Responses for Question 4, which asked about the relative effectiveness of the current course in comparison to earlier courses in the program, were similarly positive in both groups. 75% of the responses from the integrated group were “4” or above, while in the decontextualized group only 71% fell into this category. It is important to note that though the integrated group had a slightly higher percentage of definitive positive responses, most of the difference was made up of “undecided” responses. This result is, therefore, somewhat inconclusive. However, it seems quite clear that at the very least, students did not perceive the experimental course to be any *less* effective than the traditional course.

The differences between the two study groups in their responses to Question 5 and Question 7 were also somewhat unexpected. The pattern that was actually observed can be explained in terms of two factors—the way that prior courses in the program are

taught, and the selection of vocabulary taught in the course under study.

With regard to prior courses (Question 7), vocabulary is taught in these courses using a traditional, decontextualized approach, and this was not altered in any way for the control group in this study. Even though only a minority (just 12% in the decontextualized group and 13% in the integrated group) of respondents answered this question with ratings below "3," it is still worth noting that this is most likely the explanation for these responses. It is also worth noting that a greater percentage of students in the integrated group indicated that they were undecided.

Finally, on Question 6, which asked students to rate their level of agreement with a statement that they would retain and use the vocabulary learned in the course in future situations, participants in both groups had similarly positive outlooks. In fact, a strong majority (76% in the decontextualized group and 75% in the integrated group) rated "4" or above, signifying that they felt they would retain some of the vocabulary. It is worth noting, however, that only in the integrated group was this positive sentiment actually accompanied by higher scores on the posttest.

The *t*-test performed using Likert totals showed that overall, there was not a statistically significant difference between the group taught using the integrated approach and the group taught using the decontextualized approach. While this conclusion is limited by the amount of usefulness of treating Likert data as interval data, it is important to note that generally both groups had positive perceptions. The results of the analysis for the attitudinal data indicate that though the integrated group appeared to have more positive orientations towards their vocabulary learning, the difference was not large enough to be statistically significant—a factor which should be considered when

interpreting these results.

In summary, a majority of responses on the perceptual survey were positive (i.e., greater percentages rating “4” and “5”). Of particular note are the responses to Question 2 and Question 3, which asked about the “meaningfulness” or “usefulness” of vocabulary study during the course and about the amount of success students felt they had learning the vocabulary. While the differences in perceptions between groups were not statistically significant overall, students in the integrated group were more likely to report positive responses to these particular statements, and taken along with their positive attitudes towards many of the other questions, these data constitute some evidence that these students generally had a more positive orientation towards their vocabulary learning than students in the traditional course.

Correlation Between Perceptions and Scores

In reference to Research Question 4, which related to investigating possible connections between learners’ perceptions of effectiveness and actual improvement (or lack thereof) on scores, the results of the Spearman ρ calculation provides interesting insight. The correlation coefficient $\rho \approx .995$ illustrates a strong positive relationship between how the students perceived their vocabulary learning and the actual success of that learning as measured by the posttest.

The existence of this positive relationship provides additional evidence (when coupled with the posttest scores) that the experimental course design was more effective than the traditional design in terms of helping learners develop academic vocabulary knowledge. As referenced above, students found both course designs useful; however,

given the fact that there is a positive correlation between perceptions and performance, this study is further evidence that positive student attitudes toward course content and towards their own language learning are linked with positive outcomes (though the nature of this link is less clear). It can be argued on the basis of these data that the experimental course design created a more positive "cycle" for the students involving both their attitudes towards their learning and their actual performance as measured by the posttest.

Implications

In this section, implications of the research for vocabulary instruction are discussed. It is also hoped that these conclusions will offer insight into both ESL placement practices and the teaching methods commonly used to teach academic vocabulary in advanced level academic ESL courses.

Homogeneity and ESL Placement

All ESL students are required to take a writing placement test and are placed in ESL writing courses based on their performance on the writing exam. The ESL students are then randomly assigned to ESL course sections or allowed to self-select in some cases. The pretest results showed that there were no significant differences between the control and experimental groups, suggesting that that the ESL placement process being used by the university appears to be working (at least as far as targeting students' vocabulary knowledge goes). Even though the study participants took the ESL course being studied during two different semesters, statistically they formed a homogenous group prior to instruction. Therefore, it can be concluded that students with similar

vocabulary knowledge are being placed in the same course, which is the major goal of the ESL placement process.

Vocabulary Instruction in ESP/EAP Writing Courses

Contextualized vocabulary instruction is commonly used in general ESL programs and in courses that include reading and grammar. The current study sought to examine the belief that contextualized vocabulary learning can also be effective in the specific context of an academic writing course of the type frequently classified as English for Specific Purposes (ESP) or English for Academic Purposes (EAP). There has been a tendency to treat these kinds of courses as somehow fundamentally different from other advanced courses, which focus on reading and grammar, and vocabulary. The apparent belief is that students in these courses have advanced to a point wherein they are capable of building academic vocabulary independently outside of class, hopefully through self-directed reading and other forms of input.

The results obtained in this study speak against such a belief and tentatively support the notion of treating vocabulary in advanced, college-level academic writing courses with the same level of importance as it would be given in an ESL course that focused on grammar or reading, for example. Despite the fact that many of the students in both groups were conversationally fluent in English and had already completed earlier coursework (often several years' worth or more), the students in the redesigned course scored significantly better on the vocabulary posttest than those in the traditional course, in which students were responsible for building their vocabulary outside class, with little help from the instructor and using context-free activities.

These results illustrate that academic writing courses are not somehow different from other types of language courses. The fact that all of the students were advanced enough to begin college-level composition courses did not mean that their academic language skills were advanced enough for them to build specialized vocabulary on their own or as an adjunct to the writing instruction they were receiving. As such, their performance on the posttests in the current study constitutes evidence in favor of not only treating academic language skills as specialized and different from conversational skills (see Cummins, 1981 for further discussion of this concept), but in favor of providing vocabulary instruction as part of advanced composition/writing courses, as well as general ESL courses, even at advanced levels.

Pedagogical Approaches to Teaching Vocabulary

The pedagogical approach used for the control group represented the most traditional way of teaching academic vocabulary in advanced composition classes. Under this approach, vocabulary is treated as an adjunct or as supplemental to the main focus of instruction, which is on composition. A great deal of the onus is placed on the students in this system to take charge of their own vocabulary learning (or not) by working with the text or workbook outside of class. Although the instructor continued to remind students of the importance of working on the vocabulary, of the need to study the vocabulary outside of class, and of the fact that they were responsible for taking quizzes on the vocabulary throughout the semester, it was the students themselves who had to set up a study schedule and determine how to focus on the vocabulary to achieve the desired score on the quizzes.

One of the many reasons why the traditional, decontextualized approach remains popular is that it can be implemented without much training or skill on the part of the teacher. Given that there is a shortage of trained and educated English language teachers worldwide (Graddol, 2007) and that many private English language teaching programs hire individuals who speak English but have no formal training in English language teaching, the approach remains popular. In addition, the approach is common in institutions of higher education in predominantly English speaking countries where the ESL instructor may be a graduate teaching assistant with no formal training in language teaching or experience in the classroom. This is true of the context where the study was conducted; most ESL instructors are graduate students in linguistics or in language education.

Even though these instructors are graduate students, they may not have relevant teaching experience and formal training in teaching academic ESL, and if they are new to the program (as was the case of the researcher in his first semester teaching) they will be unfamiliar with the curriculum. As a result, teaching assistants who are ESL instructors have many concerns related to their own academic coursework and degree programs, and, therefore, are looking for ways to minimize the amount of preparation required for their ESL classes. The traditional approach is also the approach that is currently in the curriculum for the program in which the courses for this research were situated. Two other reasons that the decontextualized approach remains popular are because of its curricular flexibility—in other words, it can easily be added to almost any course or curriculum, and its popularity with learners who prefer to work alone and are independently motivated to do so. All of these factors work together to make the

decontextualized and traditional approach the more popular and common one, in spite of the lack of research support of pedagogical misgivings that some experienced instructors who are familiar with the research may have about using it.

The approach used to teach Group B requires a great deal more expertise and preparation on the part of the instructor. The instructor must be able to select appropriate texts for contextualized input. In addition, the instructor must have developed a set of instructional strategies to include vocabulary instruction into the content of the classroom, while using the same amount of in-class time. The inclusion of contextualized vocabulary instruction must be done without compromising the integrity of the content (i.e., L2 writing).

The researcher was assigned to teach ESL-1060 (the advanced composition course) during his first semester as a graduate teaching assistant in the Master of Arts (MA) in linguistics program (with an emphasis in applied linguistics). He was new to teaching when he was first exposed to the traditional approach to teaching vocabulary in an academic writing course. Though he appreciated the low preparation requirements of this approach, it quickly became clear that this approach was not working that well for the students, who often asked about vocabulary instruction and complained that this aspect of their learning seemed to be neglected. The approach was also inconsistent with what he was learning about teaching academic vocabulary in his graduate courses (e.g., LING 6812, Content-based Instruction), many of which were pedagogically oriented.

Furthermore, the ESL course taught using the traditional, decontextualized approach seemed weak in relation to its curricular focus and one of its major stated objectives—to promote academic vocabulary development in the students. While the

vocabulary workbook chosen to help students develop their academic vocabulary seemed to be well designed, it wasn't being used in a meaningful way within the course. The students were expected to work on vocabulary development outside class, without interaction with peers or other texts or input from the instructor, and without any feedback apart from weekly online quizzes. Consequently, many of the students simply memorized the vocabulary lists in the textbook in order to pass the quizzes.

This method of learning vocabulary is not known for promoting long-term retention of information. It seemed likely that students who used this approach would forget whatever they had studied because there was no meaningful, contextualized opportunity for them to use what they had learned. Even though the instructor encouraged students to develop strategies for working with the vocabulary on their own, the instructional process encouraged students to learn for a test result, rather than to meaningfully develop their vocabulary for ultimate use in their own academic writing. As result, vocabulary felt like "busy work" to both the instructor and the students. These were shortcomings of the approach that the researcher began to notice as an instructor during the first course that he taught. Because the students had learned vocabulary in this way previously, they were largely accepting of the process (although some frequently asked for additional help, as noted above).

The approach used in the experimental course sought to resolve many of these problems by utilizing a contextualized pedagogical practice for teaching vocabulary. The course content was altered by carefully selecting readings. Readings were selected so that they provided a context for teaching and using academic vocabulary. The readings also provided springboards from which to discuss the academic writing content concepts.

Students were still expected to focus on academic vocabulary outside of class (mostly by completing course readings and maintaining a vocabulary notebook); however, the instructor also spent in-class time using the academic vocabulary, discussing it with the students, and doing class activities related to practicing the target vocabulary. To the best of the researcher's efforts, this approach was pedagogically grounded in the research on teaching vocabulary.

As outlined in the literature review in Chapter 2, much of the previous investigation into vocabulary instructional practices has resulted in recommendations for explicit vocabulary instruction as a critical component of any general language course (Folse, 2004; Nation, 2002). After all, to revisit Lewis' (1993) famous quote, language "consists of grammaticalized lexis, not lexicalized grammar" (p. 36). This conclusion that explicit vocabulary instruction is important in language courses was confirmed by the results of this study, as well as the conclusion that such instruction should be contextualized and integrated.

The students in the experimental group who were given contextualized, explicit assistance with vocabulary and who spent both in-class time on vocabulary development activities and out of class time working with academic vocabulary to complete course writing assignments scored significantly higher on the vocabulary posttest than those who were taught using the traditional, decontextualized approach. This approach required that students spend time outside of class studying the selected academic vocabulary, and they were free to determine how much time to spend and to develop the strategies that worked best for them. They were also encouraged to focus on vocabulary development by their instructor and given an incentive for learning vocabulary in the form of online quizzes. In

addition, students taught using the contextualized approach seemed to have more positive attitudes about their learning than those taught using a more decontextualized approach.

Feasibility Issues

One of the most frequent complaints of the researcher's teaching assistant peers was that using such a contextualized approach would limit their ability to successfully cover all the content devoted to writing or that it would place a much more significant burden on them in terms of preparation, and therefore would be unfeasible. One major goal of this study, therefore, was to investigate whether or not academic vocabulary learning could be successfully integrated into an L2 writing course without compromising the academic writing portion of the content. The results of this study seem to indicate that this is possible. Students in the experimental group performed better on a multiple-choice posttest than did the students in the control group. The redesigned course did not leave out any substantive content required by the ESL writing program to make room for the focus on academic vocabulary. It is, however, important to point out that these results come with the caveat that this study did not look at performance on the academic writing produced by the students.

While the researcher had to plan the course in advance and prepare more carefully and for longer periods of time prior to the course, he did not believe that his day-to-day preparation differed significantly. The increased preparation load was concentrated mostly in the planning stage, particularly the selection of readings prior to the beginning of the course, rather than in everyday lesson planning. The fact that students taught using this approach were more successful in their vocabulary learning (as measured by the

posttest) not only confirms the importance of designing instruction in pedagogically sound ways, but also makes clear that pedagogically sound instruction is possible in spite of requiring more work from instructors.

Pedagogical Implications for the Approaches Examined

Perhaps some of the most important implications of this study involve our perceptions about effective vocabulary instruction. Firstly, the results constitute a confirmation and validation of Cummins' research (1981a; 1981b; 1991; 1993; 2007) into academic language acquisition. Though students in both groups had 16 weeks of instruction, neither group made significant improvements to their academic vocabulary in that time. Additionally, even though students in the integrated approach learned more effectively on average (making a gain of approximately one point more on the posttest), this gain was not statistically significant, nor was the effect size between groups for the posttest scores particularly large. This is strong evidence that academic vocabulary—even as assessed by fill in the blank and multiple-choice questions—is difficult for students to acquire and comes more slowly (Cummins, 1984; Thomas & Collier, 1997). This is in contrast to "social" or "playground" English, which often comes relatively quickly, within just a few years of study (Collier, 1987; Cummins, 1984).

It is also important to observe that the students in both groups did relatively well on the individual unit quizzes throughout the semester (which were drawn from the same workbook and list of target vocabulary). This shows that earlier student performance on unit quizzes did not accurately depict long-term retention—students learned the vocabulary, passed the quizzes, and then forgot what they had learned before the posttest.

Because the study participants were not notified that there would be a posttest, they had no opportunity to study, which means that their lower posttest performance was a more accurate reflection of what they had actually acquired and retained, and was not inflated by "cramming" before the test.

The interesting implication here is that learners in both groups seemed to have this same difficulty retaining the target vocabulary for future use. While learners in the integrated course retained, on average, one more target vocabulary item, this (as previously noted) is not enough to constitute a statistically significant difference between the groups. It appears that academic vocabulary is just extremely difficult to acquire (at least in the short term).

Limitations of the Current Study and Directions for Future Research

While the results of this study are encouraging, they are also limited by several factors that might be addressed in future research. For example, this study investigated student learning in only a single course situated within a three-course writing program. As noted, one semester did not seem to be long enough for students to make significant vocabulary gains. Therefore, one possible avenue for future research would be to investigate student learning of academic vocabulary over a longer period of time (for example, over the entire program or the three-course sequence) to get clear within-group data that can be compared. Based on the results of this study, an obvious hypothesis arises that students taught using the new design would show greater gains than those taught using the traditional design; however, a longer study would need to be designed to

investigate this hypothesis.

Another limiting factor in this study is the number of students. While there was no indication that these students were not representative of the ESL student population as a whole, a larger study group would possibly provide even stronger evidence in favor of the experimental design.

Next, despite the comparison of posttest results favoring the experimental group over the control group, it is important to remember that there was not a significant difference in actual score gains between the two groups of students studied. Though the experimental students, on average, gained an average of 1 point more between the pretest and posttest, statistical analyses showed that this difference was not great enough to be statistically significant. This places a limitation on how strongly the study results can be interpreted to favor the instructional approach used in the integrated group.

As far as directions for future research are concerned the researcher would like to make the following suggestions. In light of the difficulty participants in both groups had with acquiring the target academic vocabulary, a question of critical importance arises. The current study made the assumption (based on earlier literature) that vocabulary instruction is useful. However, much of this previous research was conducted using vocabulary that is frequently used in interpersonal communication in everyday language, rather than infrequently used vocabulary that is of an academic nature. In addition, data were collected from vocabulary assessments that were often given directly after explicit instruction rather than delayed, as is the case with this study. The results beg the critical question of whether or not learners benefit from explicit academic vocabulary instruction in the short term.

The possibility that learners of academic vocabulary may not benefit from explicit instruction, while partially addressed by the results of this study, was not fully examined. In particular, the question of whether or not a longer-term study observing the effects of different pedagogical approaches over a longer period of time would show larger or more significant effects remains unanswered. This question has pedagogical consequences for the planning of ESP/EAP programs. If such programs cannot be shown to make significant improvements over the short duration, then further evidence from studies taking place over a long duration is necessary to effectively make decisions about the what kinds of instructional approaches are appropriate. Clearly, longitudinal research of this type would be extremely valuable in a practical sense, especially taken together with the results of the current study.

Finally, it would be worth comparing these results to other courses in the program to examine whether or not these results are in any way proficiency dependent (at least as measured by the placement test used by the program). All students are given a writing proficiency exam on entrance into the ESL program and placed into one of four different categories. To determine if proficiency were a factor, data from each course in the program, which should correspond to proficiency levels, might be useful in determining whether the positive influence of explicit and contextualized instruction is more useful at some proficiency levels than at others, or whether there is a correlation between proficiency level upon entering a course and likelihood of a positive learning experience in the course. Researchers who are interested in intensive English programs (IEPs), which offer a full range of classes at different levels of proficiency and language skills and content areas, would find a context for investigating proficiency dependent variables and

effectiveness of vocabulary instruction. These questions, while beyond the scope of the current study, could potentially provide even more useful insight into the teaching and learning of vocabulary among academic ESL students.

APPENDIX A

ORGANIZATION DIAGRAMS FOR COURSES

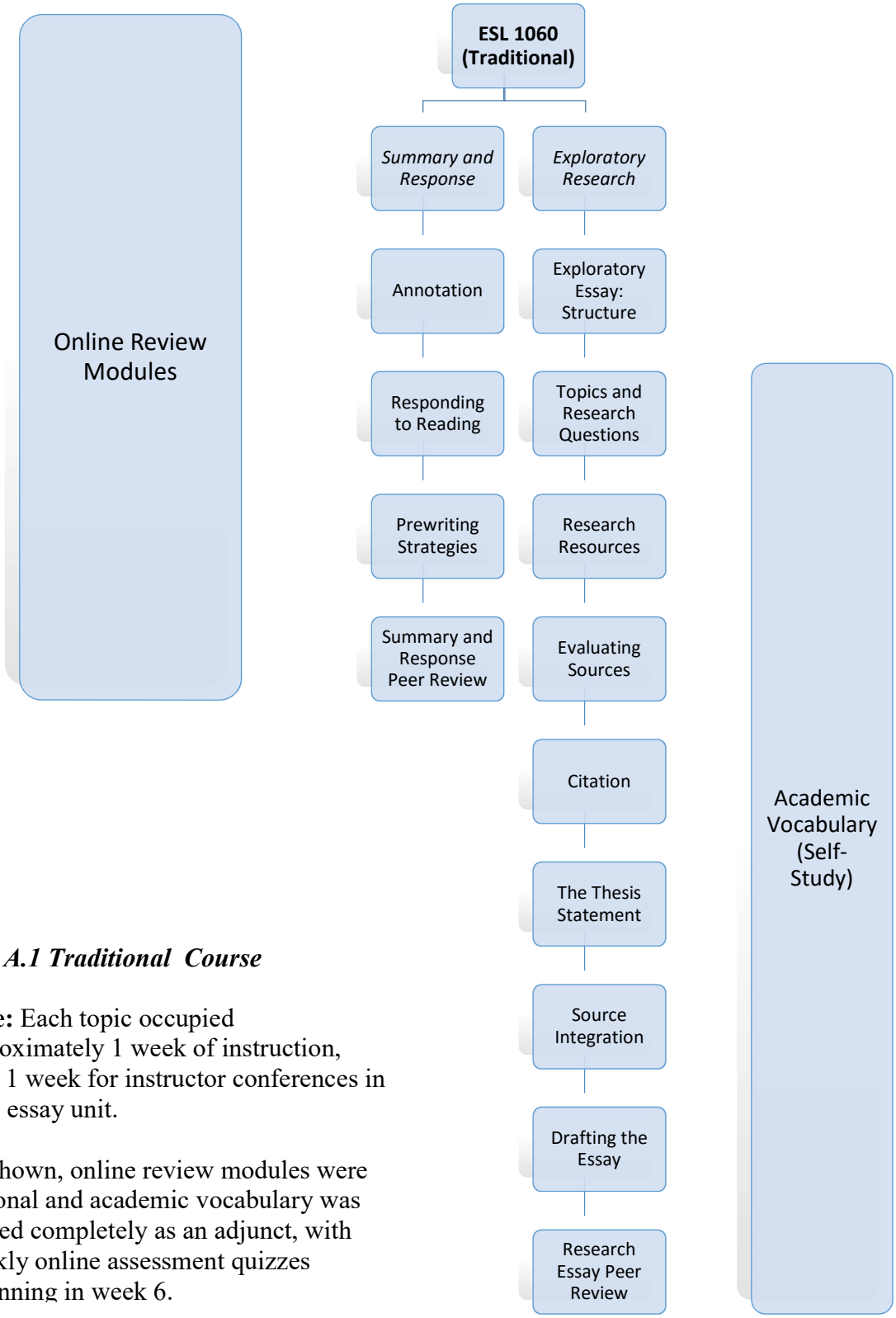

Fig. A.1 Traditional Course

Note: Each topic occupied approximately 1 week of instruction, with 1 week for instructor conferences in each essay unit.

As shown, online review modules were optional and academic vocabulary was treated completely as an adjunct, with weekly online assessment quizzes beginning in week 6.

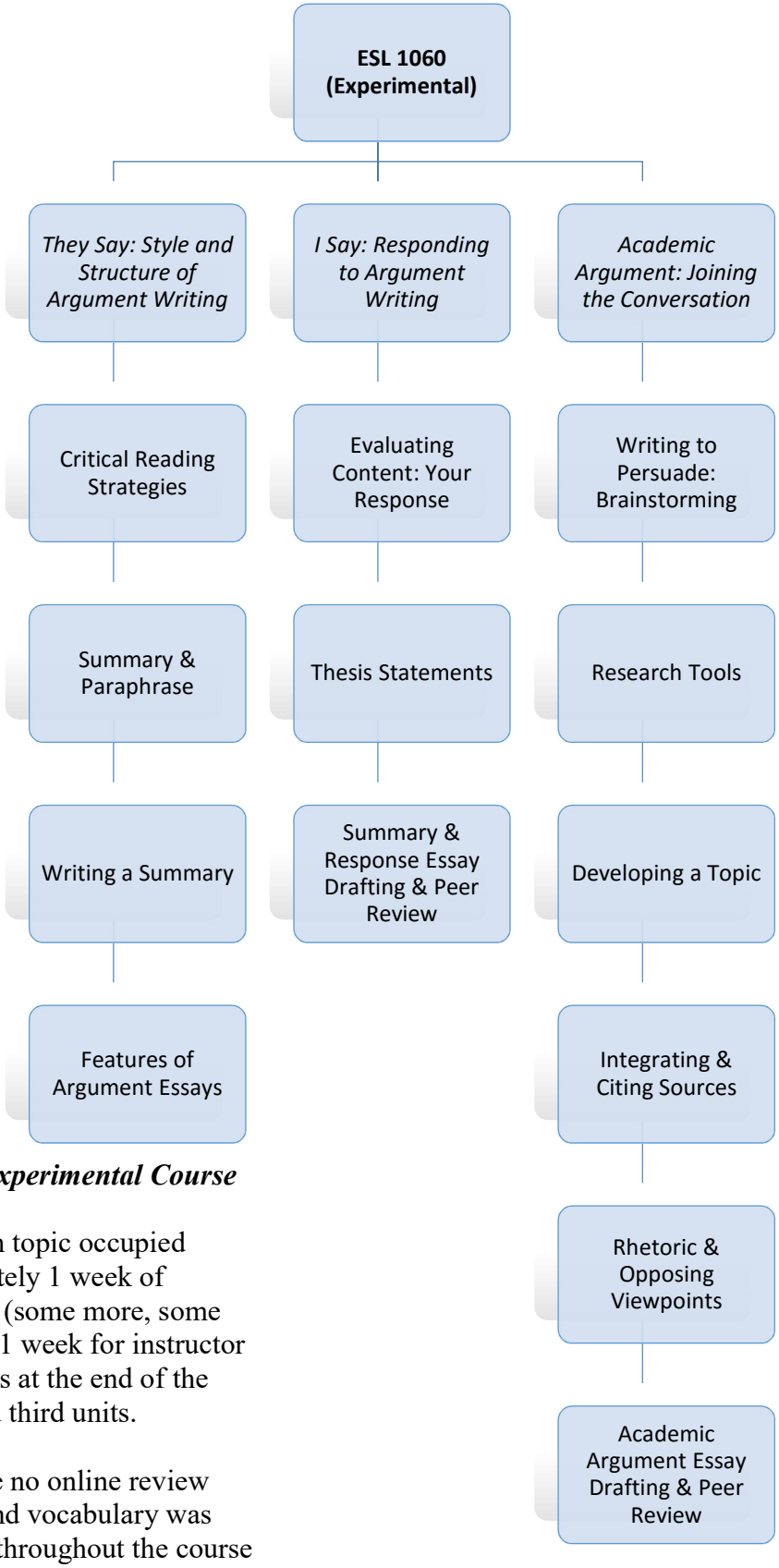

Fig. A.2 Experimental Course

Note: Each topic occupied approximately 1 week of instruction (some more, some less), with 1 week for instructor conferences at the end of the second and third units.

There were no online review modules and vocabulary was integrated throughout the course beginning in the 1st week.

APPENDIX B

VOCABULARY PRETEST/POSTTEST

Directions: Before we begin studying academic vocabulary in ESL 1060, I would like you to take a pretest to help me better understand what you already know. This pretest does not count on your grade, so please relax and just do your best. There are 70 vocabulary words, divided into 20 sections. The sections are marked with instructions—for example, *Write the correct word in the blanks.* Write directly on the paper.

Write the correct word in the blanks.

1. Charles chooses to remain _____ about the details of the case. 2. Right now, Ernie receives the _____ wage of $7.25. 3. Peru has a _____ population that includes Mestizos, Amerindians, Europeans, Afric-Peruvians and Asians.	brief accurate diverse explicit ignorant minimum
4. You have to pay the $10 _____ before you can enter. 5. Reverend Arthur began her _____ in 2006.	tape ministry domain display input fee

Choose the correct word for each collocation.

flexibility instructions recovery edition attachment rational motives assignment presumption intervals
6. When will you **publish the next** _____ **of your book**? 7. After you **finish the homework** _____ you may leave. 8. Stay here and **wait for further** _____.

Write the correct part of speech in the blanks.

9. (inhibit) Wendy has no _____ about singing in public. 10. (abstract) It doesn't do much good to define words _____; you need to be more concrete. 11. (aggregate) The police kept an eye on the youths who were _____ on the street corner.

Write the word that belongs with each set of synonyms.

12. show, expose, uncover, _____ 13. direct, well-defined, straightforward, _____ 14. join, bond, fasten, link, _____	attach exceed intelligent reveal incorporate index explicit allocate

Write the correct word in the blanks.

15. The_____classes are for people over the age of 18. 16. There are laws against using biological and _____weapons. 17. The new book is a_____ example of a "perfect hero" essay.	chemical adult contrary finite classic identical
18. After her_____from prison, Cathy decided to take college classes to improve her life. 19. Many people are starting to distrust mainstream _____, preferring to search for news stories on the Internet.	topic decade release media globe file

Choose the correct word for each collocation.

simulation mode reversal priority transmit contrary uniquely intervention submit visibly
20. Martha was_____**shaken** by the news of her nephew's death. 21. The stock market has risen recently, but it could **suffer a** _____if the news from Europe is bad. 22. Scientists can **run a computer**_____to solve a problem that is impossible to work on with pencil and paper alone.

Write the correct part of speech in the blanks.

23. (unique) Dr. Algren is _____ qualified to be the chairman.
24. (isolate) The prisoner was kept in_____for one month.
25. (deny) The State Department issued a _____.

Write the word that belongs with each set of synonyms.

26. base, support, groundwork, _____ 27. contain, include, consist of, _____ 28. conclude, determine, guess, _____	intervene comprise transmit channel foundation ideology infer adapt

Write the correct word in the blanks.

29. Stay on this path. Do not _____ from it, or you will certainly get lost. 30. The firemen were able to_____the fire damage to the building and no lives were lost. 31. At the end of your report, please_____a list of the sources you used for your data.	terminate minimize restore deviate detect append
32. Marie sat in prison awaiting her_____ release. 33. In Pakistan, the_____religion is Islam.	predominant eventual virtual intense radical uniform

Choose the correct word for each collocation.

abandoned	append	commodity	automated	clarify
currency	revision	exhibit	offset	inspection

34. This poorly-written essay needs to **undergo a complete** _____.
35. The young prisoner was released in the desert and_____**to his fate**.
36. A spirit of cooperation is **a rare**_____in politics these days.

Write the correct part of speech in the blanks.

37. (complement) Lectures are_____by tutorial and lab sessions.
38. (displace) Refugees living in_____camps have little access to clean water and food.
39. (fluctuate) Quantum_____arises from the uncertainty principle.

Write the word that belongs with each set of synonyms.

40. outlook, possibility, likelihood, _____
41. map, diagram, outline, _____
42. find, perceive, discover, _____

exhibit	chart
prospect	vehicle
detect	appreciate
reinforce	theme

Write the correct word in the blanks.

43. The moon is a _____ about 3475 km in diameter.
44. All members of the _____ were motivated to win the big game.
45. Only a few of the oranges were rotten. The _____ of them were perfectly fine.

bulk
analogy
protocol
revolution
sphere
team

46. Mary said she was much younger than Sue, but we found that the_____ is true: Sue is younger.
47. After the tornado, the governor called in the _____to help the disaster victims.

converse
military
device
route
portion
duration

Choose the correct word for each collocation.

mature	mutual	coherent	medium	erosion
duration	norm	intermediate	coincidence	portion

48. Our housing costs **take up a sizeable**_____of our monthly budget.
49. Hilary and I **hold** each other **in high**_____**regard**
50. In a sudden **departure from the**_____, our professor decided to answer questions from us.

Write the correct part of speech in the blanks.

51. (temporary) This machine is_____out of order.
52. (suspend) Bingham will take Jon Busch's place during his one-game _____next week.
53. (subordinate) Some people think that belief in a god means _____of man to the divine will.

Write the word that belongs with each set of synonyms.

54. look for, expect, foresee, _____
55. concur, synchronize, match, _____
56. set off, actuate, initiate, _____

anticipate	assure
cease	erode
mediate	coincide
trigger	confine

Write the correct word in the blanks.

57. The _____ temperature is ten degrees higher than the internal temperature.
58. In her_____book, Ms. Stewart will discuss her latest theories on child care.
59. Because_____motivation comes from within a person, it is usually stronger than outside rewards such as money.

dynamic
external
forthcoming
intrinsic
overall
voluntary

60. Cancer_____rates have increased in recent years.
61. My initial_____to join the team was replaced by enthusiasm when I found out how fun it could be.

tradition
reluctance
panel
incidence
depression
colleague

Choose the correct word for each collocation.

encounter	collapse	expansion	modified	quote
unified	medical	widespread	integrity	assembled

62. Iran is considering **halting the** _____ **of** its nuclear program.
63. The new law requires each patient to have a **face-to-face** _____ with their doctor in order to receive in-home Medicare services.
64. The judge ordered to the prisoner to **undergo a** _____ **exam**.

Write the correct part of speech in the blanks.

65. (incline) I'm not_____to travel to hot, topical countries.
66. (nuclear) The_____of a cell contains DNA.
67. (persist) Her_____in looking for a job paid off. She found one!

Write the word that belongs with each set of synonyms.

68. strange, unusual, unexpected, _____
69. even though, notwithstanding, _____
70. call, pray, appeal, beseech, _____

whereby	ethnic
odd	invoke
albeit	modify
straightforward	levy

APPENDIX C

LIKERT SURVEY INSTRUMENT

Instructions:

Step 1. Read the following statements about your vocabulary learning in this course.

Step 2. For each statement, decide whether you agree or disagree.

Step 3. Circle the appropriate rating in the space on the right, with "1" being strongly disagree and "5" strongly agree.

Statements About my Experience Learning Vocabulary	**Score**
1. When studying vocabulary for this course, I had to memorize a great deal.	1 2 3 4 5
2. My vocabulary study for this course was meaningful and useful.	1 2 3 4 5
3. In general, I would describe my vocabulary learning in this course as successful.	1 2 3 4 5
4. Compared to my vocabulary learning experiences in ESL 1040 and/or ESL 1050, I would describe my vocabulary learning experiences in ESL 1060 as more effective.	1 2 3 4 5

5. I used the academic vocabulary I was learning for the ESL 1060 course in my own writing for writing assignments.	1 2 3 4 5
6. I believe that I will remember the vocabulary I learned in the ESL 1060 course and will be able to use it in the future.	1 2 3 4 5
7. The vocabulary that I studied in the ESL 1040 and 1050 courses was useful in helping me complete the required writing assignments for the ESL 1060 course.	1 2 3 4 5

REFERENCES

Bailey, N., Madden, C., & Krashen, S. D. (1974). Is there a "natural sequence" in adult second language learning? *Language Learning*, *24*(2), 235-243.

Chomsky, N. (1957). *Syntactic structures*. The Hague, Netherlands: Mouton.

Chomsky, N. (1959). A review of B.F. Skinner's verbal behavior. *Language*, *35*(1), 26-58.

Christianakis, M. (2010). Collaborative research and teacher education. *Issues in Teacher Education*, *19*(2), 109-125.

Clipperton, R. (1994). Explicit vocabulary instruction in French immersion. *The Canadian Modern Language Review*, *50*(4), 736-749. Retrieved from Linguistics and Language Behavior Abstracts database. (Accession No. 9407086)

Coady, J., & Huckin, T. (1997). *Second language vocabulary acquisition: A rationale for pedagogy*. Cambridge, UK: Cambridge University Press.

Cobb, T. (2008). What the reading rate research does not show: Response to McQuillan & Krashen (2008). *Language Learning and Technology*, *12*(1), 109-114.

Collier, V. P. (1987). Age and rate of acquisition of second language for academic purposes. *TESOL Quarterly*, *21*(4), 617-641.

Coxhead, A. (2000). A new academic word list. *Tesol Quarterly*, *34*(2), 213-238.

Crawford, J. (2002). The role of materials in the language classroom: Finding the balance. In J. C. Richards & W. Renandya (Eds.), *Methodology in language teaching: An anthology of current practice* (pp. 80-91). New York, NY: Cambridge University Press. (Original work published 2002)

Cummins, J. (1981a). Age on arrival and immigrant second language learning in Canada: A reassessment. *Applied Linguistics*, *2*, 132-149.

Cummins, J. (1981b). Empirical and theoretical underpinnings of bilingual education. *Journal of Education*, *153*(1), 16-29.

Cummins, J. (1984). *Bilingualism and special education: Issues in assessment and pedagogy.* Clevedon, England: Multilingual Matters.

Cummins, J. (1991). Conversational and academic language proficiency in bilingual contexts. *AILA Review*, *8*, 75-89.

Cummins, J. (1993). Bilingualism and second language learning. *Annual Review of Applied Linguistics*, *13*, 51-70.

Cummins, J. (2007). Rethinking monolingual instructional strategies in multilingual classrooms. *Canadian Journal of Applied Linguistics*, *10*(2), 221-240.

DeKeyser, R. (1997). Beyond explicit rule learning: Automatizing second language morphosyntax. *SSLA*, *19*, 195-221.

Dornyei, Z. (1994). Motivation and motivating in the foreign language classroom. *The Modern Language Journal*, *78*(3), 273-84.

Dulay, H. C., & Burt, M. K. (1974). Natural sequences in child second language acquisition. *Language Learning*, *24*(1), 37-53.

Ellis, R. (2012). *Oxford Introductions to Language Study: Vol. 2. Second language acquisition*. Oxford, UK: Oxford University Press.

Folse, K. S. (2004). *Vocabulary myths*. Ann Arbor, MI: The University of Michigan Press.

Gardner, R. C. (1985). *Social psychology and second language learning: The role of attitudes and motivation*. London: Edward Arnold.

Gardner, R. C., & Tremblay, P. F. (1995). Expanding the motivation construct in language learning. *The Modern Language Journal*, *79*(4), 505-20.

Gardner, R. C. (2001). Integrative motivation and second language acquisition. In Z. Dornyei & R. Schmidt (Eds.), *Motivation and second language acquisition* Honolulu: University of Hawai'i Press.

Gass, S., & Varonis, E. M. (1994). Input, interaction, and second language production. *Studies in second language acquisition*, *16*(3), 283-302.

Graff, G., Birkenstein, C., & Durst, R. (2012). *They say, I say* (2nd ed.). New York, NY: WW Norton & Company.

Harmon, J.M., Hedrick, W.B., & Fox, E.A. (2000). A content analysis of vocabulary instruction in social studies textbooks for grades 4-10. *The Elementary School Journal,* 100, 253-271.

Haverkamp, B. E., Morrow, S. L., & Ponterotto, J. G. (2005). A time and place for qualitative and mixed methods in counseling psychology research. *Journal of Counseling Psychology*, *52*(2), 123-125.

Haynes, M. (1993). Patterns and perils of guessing in second language reading. In T. Huckin, M. Haynes, & J. Coady (Eds.), *Second language reading and vocabulary acquisition* (pp. 46-64). Norwood, NJ: Ablex.

Hedgecock, J. S., & Ferris, D. R. (2005). *Teaching ESL composition: Purpose, process, and practice* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum Associates.

Hesse-Biber, S., & Leavy, P. (2011). *The practice of qualitative research*. Boston, MA: SAGE Publications.

Hunt, A., & Beglar, D. (2002). Current research and practice in teaching vocabulary. In J. C. Richards & W. Renandya (Eds.), *Methodology in language teaching: An anthology of current practice* (pp. 258-266). New York, NY: Cambridge University Press. (Original work published 1998)

Joe, A., Nation, P., & Newton, J. (1996). Vocabulary learning and speaking activities. *English Teaching Forum*, *34*(1), 2-7.

Krashen, S. D. (1977). The monitor model for adult second language performance. In M. K. Burt & H. C. Dulay (Eds.), *Viewpoints on English as a second language* (pp. 152-161). New York, NY: Regents Publishing Company. (Original work published 1977)

Krashen, S. D. (1982). *Principles and practice in second language acquisition*. Oxford, UK: Pergamon Press.

Krashen, S. D. (2011). The compelling (not just interesting) input hypothesis. *The English Connection*, *15*(3), IC1.

Larsen-Freeman, D. (1976). An explanation for the morpheme acquisition order of second language learners. *Language Learning*, *26*(1), 125-134.

Larsen-Freeman, D., & Long, M. H. (1991). *An introduction to second language acquisition research*. New York, NY: Longman.

Laufer, B., & Nation, P. (1995). Vocabulary size and use: Lexical richness in L2 written production. *Applied Linguistics*, *16*(3), 307-322.

Lewis, M. (1993). *The lexical approach*. Hove, UK: Language Teaching Publications.

Long, M. H. (1988). Instructed interlanguage development. In L. M. Beebe (Ed.), *Issues in second language acquisition: Multiple perspectives* (pp. 115-141). Cambridge, MA: Newbury House. (Original work published 1988)

Long, M. H. (1996). The role of the linguistic environment in second language acquisition. In W. C. Ritchie & T. K. Bhatia (Eds.), *Handbook of second language acquisition* (pp. 413-468). San Diego, CA: Academic Press.

Loucky, J.P. (2005). Combining the benefits of electronic and online dictionaries with CALL websites to produce effective and enjoyable vocabulary and language learning lessons. *Computer Assisted Language Learning*, *18*(5), 389-416.

McKeown, M.G. (1985). The acquisition of word meaning from context by children of high and low ability. *Reading Research Quarterly,* 20, 482-496.

McLaughlin, B. (1978). The monitor model: Some methodological considerations. *Language Learning*, *28*(2), 309-332.

McQuillan, J., & Krashen, S. D. (2008). Can free reading take you all the way? A response to Cobb (2007). *Language Learning and Technology*, *12*(1), 104-108.

Nation, P. (2001). *Learning vocabulary in another language*. New York, NY: Cambridge University Press.

Nation, P. (2002). Best practice in vocabulary teaching and learning. In J. C. Richards & W. Renandya (Eds.), *Methodology in language teaching: An anthology of current practice* (pp. 258-266). New York, NY: Cambridge University Press. (Original work published 1996)

Nunan, D. (1989). Toward a collaborative approach to curriculum development: A case study. *TESOL Quarterly*, *23*(1), 9-25.

Nunan, D. (1992). *Research methods in language learning*. New York, NY: Cambridge University Press.

Nunan, D. (1997). Classroom teachers and classroom research. In D. Nunan & D. Griffee (Eds.), *Classroom Teachers and Classroom Research* (pp. 1-10). Tokyo, Japan: Japan Association for Language Teaching Press. (Original work published 1997)

Nunan, D. (1997). Developing standards for teacher-research in TESOL. *TESOL Quarterly*, *31*(2), 365-367.

Nunan, D., & Bailey, K. (2009). *Exploring second language classroom research: A comprehensive guide*. Boston, MA: Heinle Cengage Learning.

Oxford, R., & Nyikos, M. (1989). Variables affecting choice of language learning strategies by university students. *Modern Language Journal*, *73*(3), 291-300.

Pica, T., Lincoln-Porter, F., Paninos, D., & Linnell, J. (1996). Language learners' interaction: How does it address the input, output, and feedback needs of L2 learners. *Tesol Quarterly*, *30*(1), 59-84.

Robinson, P. (1997). Generalizability and automaticity of second language learning under implicit, incidental, enhanced, and instructed conditions. *SSLA*, *19*, 223-247.

Rust, F., & Meyers, E. (2006). The bright side: Teacher research in the context of educational reform and policy making. *Teachers and Teaching: Theory and Practice*, *12*(1), 69-86.

Schmidt, R. (1990). The role of consciousness in second-language learning. *Applied Linguisitics*, *11*(2), 129-158.

Schmitt, N., & Zimmerman, C. (2002). Derivative word forms: What do learners know? *TESOL Quarterly*, *36*(2), 145-171.

Seidenberg, M. S. (1992). Connectionism without tears. In S. Davis (Ed.), *Connectionism: Advances in theory and practice* (pp. 84-122). Oxford, UK: Oxford University Press. (Original work published 1992)

Skinner, B. F. (1957). *Verbal behavior*. Acton, MA: Copley Publishing Group.

Smalley, R. K., Ruetten, M. K., & Kozyrev, J. R. (2012). *Refining composition skills: Academic writing and grammar* (6th ed.). Independence, KY: Heinle Cengage Learning.

Swain, M. (1985). Communicative competence: Some roles of comprehensible input and comprehensible output in its development. In S. Gass & C. Madden (Eds.), *Input in second language acquisition* (pp. 235-256). New York, NY: Newbury House. (Original work published 1985)

Thomas, W. P., & Collier, V. P. 1997. *School effectiveness for language minority students*, Washington, DC: George Washington University Center for the Study of Language and Education.

Walker, B. (2012). *English vocabulary for academic success: Practicing academic English words and grammar*. Charleston, SC: Author.

Walters, J., & Bozkurt, N. (2009). The effect of keeping vocabulary notebooks on vocabulary acquisition. *Language Teaching Research*, *12*(4), 403-423.

Ying Lao, C., & Krashen, S. D. (2000). The impact of popular literature study on literacy development in EFL: More evidence for the power of reading. *System*, *28*(2), 261-270.